

SOCIAL AND ECONOMIC STUDIES

Editor: H. D. Huggins

Vol. 3, No. 1

June, 1954

INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH
UNIVERSITY COLLEGE OF THE WEST INDIES, JAMAICA, B.W.I.

HC 161

SG

v. 3.

CONTENTS

	Page
Household Budgets and Nutritional Analysis of Food Consumption in Barbados ..	K. H. Straw 5
The Significance of Transport in the Jamaican economy: an estimate of gross expenditure on internal transport	W. F. Maunder 39
The Jamaica Constitution of 1884	Ronald V. Sires 64
The Problem of Cultural Integration in Trinidad	Lloyd Braithwaite 82
Colonial Monetary Theory	A. F. Earle 97
Rejoinder to Mr. Earle	"Analyst"
Book Reviews	G. E. Cumper 109 Ronald V. Sires Nora Siffleet

Correction: Vol. 3, No. 1. Front Cover: for date
1886 read 1884.

Correction: Vol. 2, No. 4, p. 82. Table 12, Col. 3, Lines 1 and 2: for 420
read 280. Col. 4, line 1: for 170 read 114; line 2, for 300 read 200.

A 99790

HOUSEHOLD BUDGETS AND NUTRITIONAL ANALYSIS OF FOOD CONSUMPTION IN BARBADOS

By

K. H. STRAW

A note on the weekly budget of the "average" household used as a basis for the construction of a series of weights for an Index of Retail Prices in Barbados, together with an estimate of the nutrient content of the average household's diet.

EXPENDITURE PATTERN OF "AVERAGE" HOUSEHOLD

A survey of the patterns of income and consumption among a sample of households in four areas of Barbados was carried out in 1951 and 1952.^a The sugar economy of Barbados gives rise to two distinct periods of economic activity called locally the crop season, which in the year the survey was undertaken lasted about 20 weeks between January and June, and "hard times", which covered a period of some 32 weeks over the rest of the year. To try and achieve an average picture householders were visited on two occasions, once in each season.

At an early stage in the preparations for the field work the government of Barbados requested that information should be collected to form the basis of a new Index of Retail Prices. No household budgets satisfactory for such a purpose had ever been collected in the island. It was not a difficult matter to arrange the survey in such a way that this information was collected. It meant in effect that the questionnaires had to be somewhat more detailed than had been intended; somewhat greater difficulties with enumeration were involved and in consequence more time was spent on field work. On the other hand it resulted in the maximum co-operation and assistance being given by government in all aspects of the work, from permission to obtain the services of school teachers (who in Barbados are civil servants) to act as enumerators, to typing, duplicating and clerical help. An arrangement was also made by Government whereby part of the statistical processing of the completed questionnaires was undertaken by the Dominion Bureau of Statistics in Ottawa. The final result was to widen the scope of the research and at the same time to provide results for immediate practical use.

^a An article on some preliminary results of this survey appeared in *Social and Economic Studies*, Vol. 1, No. 4, August, 1953.

The existing Cost of Living Index had been in operation since 1939 and was based on a series of weights calculated from import statistics and certain figures of local production. Luxuries were excluded and only the varieties and qualities of goods thought to be consumed by the working classes were included. The calculation of an index on this basis is reasonably sound in the Barbadian context since a very large proportion of goods consumed is imported. In the circumstances in which the index had to be prepared there is no doubt that it was as soundly based as was possible and that it was of great value during the war years.

Originally the weights had been adjusted annually, but in later years this annual adjustment was not made. Considerable dissatisfaction with the index began to be expressed, and at the beginning of 1951 certain information became available, particularly on rents, which cast further doubt upon its validity. A Cost of Living Index Committee was set up in June 1951, to "report on the operation of the present Cost of Living Index and, if necessary, to make recommendations for the adoption of a new index in view of the variations in the consumption quantities since May 1947, when the present weightings were adopted."

The findings of this Committee were that a new index was required but that before formulating this the results of the Survey of the patterns of income and consumption should be examined. The "weights" calculated from these results should be compared with the weights obtained on the basis of imports and home consumption statistics. Until the results of the survey became known it was recommended that the existing index be continued, the weights being recalculated on the basis of the 1949 patterns of imports and local production and on certain information on rents and other minor matters which had become available.

The Survey of the patterns of income and consumption among a sample of households was completed covering both seasons and on receipt of the results of the statistical processing from the Dominion Bureau of Statistics broad analyses of the patterns of consumption in the different income groups in the two surveys were prepared. After an examination of these results it was decided to include all households in the index in which the average weekly income was between \$0 and \$49.^a The number of households in which the average weekly income was within this range amounted to 1,336—94.3% of the 1,417 households from which satisfactory returns were received. Thus the "average" household's expenditure pattern was calculated on the basis of the returns from these 1,336 households.

In general the weekly expenditure on each item was calculated by multiplying the total expenditure of all households on each item

^a \$ (B.W.I.) = 4/2d.

in the first survey by 32 (on the assumption that hard times lasted 32 weeks) and the same procedure was repeated for crop, allowing 20 weeks. These two seasonal totals were added together to give the total of annual expenditure of all the households on each item, and weekly expenditure of the average household was then obtained from the weighted totals of annual expenditure.

There were, however, certain exceptions. The first relates to expenditure on housing. Of the sample households some 20 per cent only were paying house rent. The remainder owned their own houses and either owned or rented the land on which their houses were situated. This proportion of rented houses among the sample of households corresponds very closely with the proportion found in the same areas at the time of the 1946 Census. Thus a figure of expenditure on housing accommodation based only upon those households paying rent would result in too low a figure. In order to cover the expenditure on housing accommodation in the case of owner-occupiers it was decided to increase the expenditure on housing accommodation to a total equivalent to the amount which would have been expended if all the households had been paying a rental at the average weekly rate paid by the 20 per cent of households actually paying rent. The average weekly expenditure was then calculated by the same weighting process described above.

The second exception relates to expenditure on clothing. A special investigation was undertaken covering household expenditure on this item during the four months of November and December 1951 and January and February 1952, the first two months covering the period during which the majority of households in Barbados reputedly incur their heaviest expenditure on this item. 200 households, with the aid of enumerators, were asked to keep a record on a specially designed form of all items of clothing purchased; 127 satisfactory returns were obtained. The figures obtained from this investigation were combined with those which emerged from the crop and hard times surveys, each set of expenditure figures being accorded a proportion of 1.3 in calculating the total annual expenditure of the households on clothing.

The broad pattern of expenditure which emerges is shown below in Table 1, and the average weekly household budget is presented in its entirety in Appendix I. The weekly expenditure of the average household, calculated in the manner described, amounted to \$16.83. 51 per cent of this amount was expended on food, 18 per cent on miscellaneous expenses and 14 per cent on clothing. Expenditure on housing amounted to some 8 per cent of the total weekly outgoings.

fuel and light 5 per cent and household supplies and durable goods 4 per cent.

TABLE 1. AVERAGE WEEKLY HOUSEHOLD EXPENDITURE PATTERN OF 1336 HOUSEHOLDS WITH AN AVERAGE WEEKLY INCOME OF BETWEEN \$0 AND \$49, WEIGHTED FOR CROP AND HARD TIMES

	\$	¢	%		\$	¢	%
TOTAL EXPENDITURE	16	83	100	Clothing	2	34	13.9
Housing	1	31	7.8	Men's and boys'	1	12	6.6
Fuel and light		88	5.2	Women's, girls' and infants'	1	22	7.3
Household supplies and durable goods		72	4.3	Miscellaneous expenses	3	03	18.0
Food	8	55	50.8	Medical care		58	3.5
Meat and fish	2	07	12.3	Personal care		36	2.1
Grain products, peas and beans	2	08	12.4	Drink and tobacco		49	2.9
Vegetables		79	4.7	Recreation		30	1.8
Fruit		23	1.4	Transport		40	2.4
Sweets		56	3.3	Expenses on garden plot		29	1.7
Dairy products, oils and fats	1	62	9.6	Other expenses		61	3.6
Proprietary foods		9	.5				
Condiments, spices etc.		13	.8				
Beverages		54	3.2				
Food bought and eaten away from home		44	2.6				

The largest weekly household expenditure on any individual item was incurred for the purchase of rice—64 cents, followed by dresses (56 cents), sugar (53 cents) and bread (41 cents).

Within the group Fuel and light, on which the average household expended 88 cents a week, the major item purchased was kerosene oil, which accounted for some 38 per cent of the total expenditure under this head. The fuels next in order of importance in the average Barbadian household were firewood and charcoal, on which some 27 per cent and 22 per cent respectively of the total weekly fuel bill was spent. Apart from the few households, hotels and other types of large institutions which may have private electricity generating plant, electricity is available only in a relatively small, though heavily populated, area of the island. Thus, preliminary figures indicate that in the sample areas covered in the survey average weekly expenditure on electricity varied from 1 cent in St. Lucy to 20 cents in Bridgetown, the centre of the main urban area. Further, the vast majority of the households do not have electricity laid on; it is only in the higher income levels that is a usual convenience. These facts account for the small weekly expenditure (5 cents) on this item in the average budget.

Average weekly expenditure on Household supplies and durable goods amounted to 72 cents. (The figures of expenditure on household supplies can be considered as accurate—within the framework of the survey—but it is doubtful whether the collection of information covering only two weeks gives a fully reliable picture of expenditure on durable goods, since such items tend to be purchased spasmodically, and in particular when a household is being set up for the first time. Information was collected during the field work on items owned and purchased in the last 12 months by the sample households and it is hoped that this will provide a more accurate picture at a later date, when the results are analysed.) The largest expenditure under this head was incurred for household soap, followed by ice, starch and disinfectants. The expenditure on water is extremely low, since about 90 per cent of the households obtained their water supplies free from communal stand-pipes. In general it is only the households in the high income levels which have their own domestic taps and pay water rates.

In Appendix I the main food group has been divided into ten sections, which are the most useful for dietary analysis. As defined for our present purposes the average household spent slightly more on Grain products, peas and beans than on any other single group of items. Within this section weekly expenditure on rice amounted to 31 per cent of the total of \$2.08, on bread to some 20 per cent, and on wheat flour and cornmeal to 11 per cent and 10 per cent respectively. Square biscuits, on which the average household expended 15 cents per week, are a locally made product, and are widely consumed throughout the island.

Expenditure on the various types of fresh meat amounted to some 35 per cent of total expenditure in the group Meat and fish, and on the various types of salt meat to just over one-fifth. On fresh fish, the supply of which is to a large extent seasonal, the average household was spending 35 cents a week,—about 17 per cent of total expenditure on meat and fish. On salt fish and canned fish the proportions were 12 per cent and 9 per cent respectively.

The weekly expenditure on Vegetables—79 cents—amounted to some 9 per cent of total food expenditure. Within this group of food-stuffs expenditure was highest on imported "Irish" potatoes, closely followed by onions—which are used to a considerable extent by Barbadian households as flavouring—and locally produced sweet potatoes. Expenditure on fruit totalled only 23 cents weekly per household, the main items of consumption being citrus, ripe bananas and coconuts, a large proportion of which are imported into the island. The average household was spending 56 cents a week on sweets, 53 cents of which went on sugar.

In the Dairy products, oils and fats group, on which the average household expended \$1.62 a week—19 per cent of total weekly food costs—expenditure on fresh milk was the main item, accounting for 22 per cent of expenses. Cooking oil, cooking butter and condensed milk were the items next in importance in the budget, accounting for 21 per cent, 17 per cent and 16 per cent respectively of average weekly expenditure under this head. Expenditure on eggs amounted to 5 cents per week in the average household.

In the Beverage group, on which 6 per cent of weekly food costs was expended, the main items of consumption were cocoa and chocolate, bottled soft drinks and "green"^a tea, expenditure varying only slightly between the three. Expenditure on coffee was very small. The item bush tea consists of leaves collected from particular types of trees and shrubs. Much more of this item is consumed than would appear from the average weekly expenditure of 1 cent on this item, since it is mainly collected and consumed without any payment being involved. There are, however, persons who collect the leaves and sell them to consumers.

Expenses incurred for clothing amounted to \$2.34 per week—some 14 per cent of total weekly expenditure. The average household was spending \$1.12 on men's and boys' wear and \$1.22 on clothing for women, girls and infants. Under the men's and boys' section expenditure on shirts—one quarter of the total—was the heaviest expense. Average weekly expenditure on trousers, shoes and cloth for making and repairing garments amounted to 17 cents on each. In the women's, girls' and infants' section 46 per cent of weekly expenditure was incurred for the purchase of dresses, and a further 16 per cent for buying cloth for making and repairing garments. Shoes and hats accounted for a further 8 per cent and 6 per cent respectively of weekly expenses.

Average weekly expenditure on the group of Miscellaneous items amounted to \$3.03 per week, of which medical care took 19 per cent, drink and tobacco 16 per cent, transport 13 per cent, personal care 12 per cent, recreation 10 per cent, expenses on garden and plot 10 per cent and other expenses 20 per cent. It is probable that the expenditure on drink, tobacco and recreation is somewhat under-estimated. Such expenditure has been under-estimated in similar studies elsewhere, mainly because of people's reluctance to disclose all their expenditure on such items. The nature of the household composition over a significant proportion of the Barbadian households probably leads to a situation in which some, at any rate, of the expenditure of the male outside the household is not fully disclosed, partly because the female will not be aware of it, and partly because the male is not inclined to disclose all his activities.

^a This is the local term for Indian and Ceylon teas.

The main item of expense of the average household under the head of recreation emerged as expenditure on lottery tickets—obviously there are large numbers of persons living in constant hope of a windfall gain. Rediffusion is not available all over the island but only in the most densely populated area round the capital. Thus the average weekly expenditure on this item is substantially higher in Bridgetown and St. Michael than the figure indicates.

Certain adjustments were made to the budget of the "average" household in order to make it a suitable basis for the calculation of a series of weights. Firstly, certain items of expenditure were excluded. These were:- lottery tickets; insurance premiums; pension contributions; taxes; subscriptions to friendly societies, trade unions, clubs, churches and other religious organizations, cash gifts to relatives, friends and charities; the cost of running a motor-car; and contributions made by males towards the maintenance of illegitimate children in other households. Further, all expenses incurred for the garden or plot were excluded. These exclusions amounted to 4.6 per cent of the average household expenditure. Apart from these exclusions all items on which the average household spent more than one half of one cent were represented. Secondly, the weekly expenditure under the head of "Food bought and eaten away from home" was divided proportionately throughout all the items of food bought for consumption at home. Thirdly, average weekly expenditure on housing was divided between renters and owner-occupiers in the proportion in which these two types of tenure occurred in the sample households. The owner-occupied houses were covered in the index by the inclusion for price collection of lumber, shingles, galvanised sheets, nails, rivets and paints.

The resultant weights for the main groups of items of expenditure are presented in Table 2, calculated as parts of 1,000 for convenience.

As required by the findings of the Cost of Living Index Committee (1951) these weights were compared with those calculated on the basis of statistics of imports and home production — the latter are shown in Table 3.

It is not proposed to deal in any detail with the differences which emerged from the calculations by the two different methods. A broad comparison suffices to indicate the nature of the disparities. The weights calculated from the import and local production figures were not based on so many items of consumption as those calculated from the field survey results. The outstanding difference in the two series of weights emerges in the group Other items or Miscellaneous items. On the old basis this group consisted, apart from tobacco and cigarettes, of items included in the new weights under either Housing

TABLE 2. WEIGHTS OF MAIN GROUPS OF ITEMS OF EXPENDITURE
(Parts of 1,000)

	Sub-Group Weight	Group Weight
Housing		82
Rental	18	
Owner-occupied	64	
Fuel and light		55
Household supplies and durable Goods		45
Food		533
Meat and fish	136	
Grain products, peas and beans	137	
Vegetables	52	
Fruit	15	
Sweets	37	
Dairy products, oils and fats	106	
Proprietary foods	6	
Condiments, spices, etc.	8	
Drinks	36	
Clothing		146
Men's and boys'	70	
Women's, girls' and infants'	76	
Miscellaneous Items		139
Medical care	36	
Personal care	22	
Recreation	14	
Drink and tobacco	30	
Transport	19	
Other expenses	18	

TABLE 3. WEIGHTS CALCULATED ON THE BASIS OF THE 1949 PATTERN
OF IMPORTS AND LOCAL PRODUCTION

(Parts of 1,000)

	Weight
Rent	53
Fuel and light	34
Food	632
Clothing	190
Other items	91

(owner-occupier) or on Household supplies and durable goods, and expenditure on medical care, personal care, recreation and transport was not included in the old index at all. Preliminary results of the field surveys indicate that expenditure on the latter items, even in the lowest income groups, is substantial, particularly for medical care. These items, it will be observed, are to a large extent locally produced services and reflect the fact that the statistics of locally produced items included in the old index were unsatisfactory and failed to cover a considerable sector of local consumption. The fact that a proportion of consumers' expenditure was not covered in the old index affects, of course, the relative size of the weights of other items. Thus the proportion of expenditure allocated to clothing in the old index is higher than emerged for any income group in the survey.

In these circumstances it was decided to adopt the weights calculated from the Survey of income and consumption patterns to form the basis of a new Index of retail prices.

A new Index of Retail Prices was constructed recently in Trinidad on the basis of family budget studies. It included families of more than one person, with family incomes of under \$140 per month, who did not grow the bulk of their own food, thus having a somewhat different coverage from that constructed for Barbados, where all families — none of whom grew the bulk of their own food — with a monthly income of under \$200 were included. The difference in coverage in Barbados due to the inclusion of households in slightly higher income levels is probably not as significant as it might appear. In Barbados 85 per cent of the households in the sample were getting less than \$30 per week. The inclusion of households in the index where earnings were between \$30 and \$49 per week arose in the main because of the high earnings of a small number of households in crop. Although comparisons in this sphere can be misleading, and often dangerous, it is worth noting how similar are the main group weights which emerged from the surveys in the two territories. In Trinidad the weight for food was 510, compared with 533 in Barbados; for living accommodation 81 compared with 82, and for clothing 130 in Trinidad and 146 in Barbados.

This pattern of expenditure in Barbados, which has emerged from the field surveys and which covered some 94 per cent of the households in the sample, indicates that the island is in some intermediate stage between the rich communities of the world and the poor. In this field only comparisons of the very broadest nature are possible and even these are fraught with considerable danger. However, the attempt to indicate the general position of Barbados may be useful. In Table 4 the broad distribution of family consumption expenditure on food in certain countries is shown.

TABLE 4. FAMILY CONSUMPTION EXPENDITURE ON FOOD (1)

Country	Date of enquiry	% of Expenditure on food
Canada	1947-48	32.9
Denmark	1948	33.1
United Kingdom	1952	39.9
Brazil	1949	48.6
Japan	1951	52.5
Puerto Rico	1941	60.0
Ceylon	1949	63.9
Philippines	1946	63.4
Barbados	1951-52	53.3

Canada, Denmark and the United Kingdom are "richer countries". In 1949 it was estimated that the per capita income of these three countries was between U.S. \$600 and U.S. \$900 per annum, giving them a high place in the scale of per capita incomes, exceeded only by the United States (2). The proportion of total expenditure devoted to food items amounted in all three cases to between 30 per cent and 40 per cent. In Brazil and Japan per capita incomes in 1949 were estimated at between U.S. \$100 and U.S. \$200 and associated with this lower income is a higher proportion of total expenditure devoted to the purchase of food. In Ceylon and the Philippines which are still poorer, with per capita incomes below U.S. \$100 per annum, over 60 per cent of family consumption expenditure was absorbed by food purchases.

Adopting the same exchange rates used in calculations of national and per capita incomes (2), in Barbados the per capita income in 1949 was about U.S. \$200, and the proportion of family expenditure applied to food purchases was about 53 per cent. Out of a population of 2,079.9 million in the seventy countries about which calculations are published (2) 66 per cent had a per capita income of less than U.S. \$200.

Thus the people of Barbados appear to be in the top half of the world's countries on the basis of per capita income and the proportion of consumption expenditure on food, a good deal better off than the poorer half of the world, but a long way short of the richer.

THE SEASONAL VARIATION IN THE EXPENDITURE PATTERN

In general the higher level of earnings among large numbers of workers in the crop season does not appear to give rise to such changes in the pattern of consumption as might be expected. The pattern is one of paying off debts and saving in crop and withdrawing savings and incurring debt in hard times (3).

The expenditure pattern which emerged for hard times was influenced by the actual period of hard times during which the field work was carried out. The work began in the middle of October 1951 and ended in the middle of January, before the crop season began, with a break from the middle until the end of December. This break in the field work in the middle of December probably avoided a considerable part of the spending for Christmas and New Year, but certainly not all of it. Further the period covered took in a large part of that time in the year when it is considered locally that expenditure is at its highest. For instance, the agricultural exhibition is held in November and new clothes are considered essential, frequently involving a new dress for each day.

On the income side at least four types of lump sum receipts over and above normal earnings were recorded and will have influenced

the expenditure pattern. Firstly, in some households which owned or rented land and produced cane in the 1951 crop season payment was received for their crop during the week covered—and the 1951 crop was the largest ever produced. Secondly, by an agreement between the Sugar Producers' Federation and the Barbados Workers' Union in 1951, a cash bonus to all sugar workers employed during the period of the crop was to be paid, on a proportionate scale which increased by 10 per cent for every 5,000 tons that the island's annual sugar crop exceeded 125,000 tons. A number of households received this payment in the week of the survey. Thirdly, by the same agreement there was a provision for an increase of 12½ per cent on the 1950 basic wage rates of all workers engaged in the sugar industry with retrospective effect from the beginning of the 1951 crop season. This again resulted in a lump sum payment of the back-pay involved and in some households the money was received in the week of the survey. Fourthly, money saved in crop is drawn out during hard times, particularly in the months of November, December and January. Figures based on the monthly deposits into and withdrawals from the Government Savings Bank provide a significant indication of this process (Table 5). Deposits are much in excess of withdrawals in the crop season months, February to June; between July and October something approaching a balance is reached, and in the period from November to January withdrawals are much larger than deposits.

TABLE 5. BARBADOS GOVERNMENT SAVINGS BANK STATEMENT OF DEPOSITS AND WITHDRAWALS, 1950-1952^a

	'000 Dollars					
	1950		1951		1952	
	Deposits	With- drawals	Deposits	With- drawals	Deposits	With- drawals
February-June	1,906	1,376	2,065	1,518	2,512	1,681
July-October	1,322	1,368	1,472	1,443	1,593	1,682
November-January	1,168	1,358	1,146	1,523	*934	*1,126
	4,396	4,102	4,683	4,484	5,039	4,489

*2 months, November and December.

Further, in 1946 there were in the island 161 Friendly Societies to which 98,000 (just over 50 per cent of the island's total population) contributed varying amounts each week (4). The annual contributions totalled \$625,042 and the bonus paid out to members amounted to \$451,000; in 1950 these bonus payments were \$474,000 (5). The 1951 returns are not yet complete, but the 80 per cent received at the time of writing indicate a significant increase over the 1950 figures. Most of these bonus payments are made during November

^a Information supplied by the Manager, Government Savings Bank, Barbados.

and early December, and really amount to savings being withdrawn (3).

Thus, as a result of such additions to purchasing power it is considered that average weekly expenditure was probably higher during the period of hard times actually covered than if the field work had been undertaken at an earlier stage—say, August and September—in hard times.

In Table 6 the weekly expenditure pattern of the average household is shown for the main groups of items for the two surveys separately.

TABLE 6. AVERAGE WEEKLY EXPENDITURE: HARD TIMES AND CROP.

	Hard Times		Crop Season	
	\$	¢	\$	¢
TOTAL EXPENDITURE	16	38	15	29
Housing	1	31	1	31
Fuel and light		93		77
Household supplies and durable goods		70		70
Food	8	32	8	80
Meat and fish	1	87	2	37
Grain products, peas and beans	1	99	2	20
Vegetables		76		81
Fruit		28		15
Sweets		56		56
Dairy products, oils and fats	1	63	1	59
Proprietary foods		09		09
Condiments, spices, etc.		13		12
Drinks		54		52
Food bought and eaten away from home		47		39
Clothing	1	85	1	15
Men's and boys'		95		54
Women's, girls' and infants'		90		61
Miscellaneous expenses	3	27	2	56
Medical care		68		40
Personal care		37		33
Drink and tobacco		49		50
Recreation		31		24
Transport		46		30
Expenses on garden, plot, etc.		25		34
Other expenses		71		45.

The average household in our present context spent slightly more each week on fuel and light in hard times than in crop, the extra expenditure being incurred for firewood and charcoal. Average weekly expenditure on kerosene, the main item of expenditure in the Fuel and light category, was almost exactly the same in the two seasons—33 cents in hard times and 32 cents in crop. Weekly expenditure on electricity, at 5 cents, was the same in both seasons. Average weekly expenditure of 70 cents on the group Household supplies and durable goods was the same in both surveys, but there was a change in the pattern within the group. In crop slightly more was

devoted to the more durable items such as chairs, beds, oil lamps, and slightly less to the single-use commodities.

The major seasonal differences occur in the Food, Clothing and Miscellaneous categories. The Food group is the only one in which consumers spent more in crop than in hard times. The average household spent about 48 cents a week more in crop mainly on the Meat and fish and Grain products categories. In the Meat and fish group of foodstuffs the chief difference arises from the seasonal nature of the fresh fish supply in Barbados. In hard times the average household was spending 18 cents a week on fresh fish compared with 62 cents in crop. The expenditure on fresh meat, mainly pork, was also higher in crop. There appears to be a substitution effect at work within the Meat and fish group since the increases in expenditure on fresh fish and meat are accompanied by decreases in expenditure on salt meat and canned fish. From the comparison of the pattern of expenditure on the group of Grain products a substantial seasonal increase of expenditure by the average household on rice emerges. In hard times weekly expenditure on rice amounted to 55 cents, increasing to 81 cents in crop. A further seasonal and substitution effect occurs in the supply of peas. In the crop season few fresh peas are available and expenditure amounted to only 3 cents per week while that on dried peas was 15 cents. In hard times, when fresh peas are reaped, the average household spent 14 cents per week compared with 10 cents on dried peas. Further increases, amounting to only a few cents a week in each case, occurred in crop in expenditure on wheat flour, cornmeal, and bread.

The seasonal change in household expenditure on vegetables is probably due almost entirely to supply conditions. In hard times slightly more was spent each week on yam and sweet potatoes, and this may well be related to the smaller expenditure on grain products in this season. On the other hand expenditure on tomatoes and onions was substantially higher in crop. On imported Irish potatoes, expenditure was the same in each season, and in hard times was the largest single expenditure item in the Vegetable group, and next to the largest in crop, when more was spent on onions. This consumption of Irish potatoes provides an interesting example of the Barbadian liking for imported items. Expenditure is incurred in all income groups, including the lowest, and in all four areas covered in the survey; and rises steadily with income. Yet to a large proportion of households it must be an expensive item, and the nutritional value of this expenditure is much less than a similar expenditure on locally produced sweet potatoes and yams.

The average household's expenditure on fruit is affected by the

seasonal nature of supplies, a considerable portion of which are imported. More was spent on this item in hard times than in crop, the main increases being on citrus and avocado pears. On the other hand the seasonal nature of the supply of mangoes leads to a heavier expenditure on this item in crop.

Expenditure on sweets, almost all of which went on purchases of sugar, was the same in both seasons. No significant seasonal differences in the pattern of consumption emerged in the Dairy products, oils and fats group. With the exception of cooking oil, on which very slightly more was spent in hard times than in crop, expenditure on the main items — fresh and condensed milk and cooking butter — was exactly the same in the two seasons. Similarly in the other three groups of foodstuffs — proprietary foods; condiments, spices; and drinks—the results of the survey indicate that there were no seasonal variations of any significance.

Weekly household clothing expenditure amounted to \$1.85 in hard times and \$1.15 in crop, while the results of a separate household investigation carried out during the months of November and December 1951 and January and February 1952 indicated a weekly expenditure of about \$3.20 per household. November and December are the months during which expenditure on clothing is highest in Barbados. Comment has been made on this elsewhere (3). No significant changes in the actual items purchased appear to take place between the two seasons. In general the picture is simply one of an increase in expenditure in hard times on the same items purchased in crop.

In the Miscellaneous group of items total expenditure was considerably lower in crop compared with hard times, significant reductions occurring in expenditure on medical care, recreation, transport and "other expenses". No significant change occurred in expenditure on personal care, while the total spent on garden and plot increased. As mentioned earlier the part of hard times covered in the field work took in a period during which incomes from sources other than normal earnings were received and expenditure was heavier than could be considered normal for the whole of the hard times period. Certain explanations for some of the similarities and differences in the expenditure pattern between the two seasons on the group of items can be suggested. The larger expenditure on medical care in hard times would appear reasonable, since it is in the period towards the end of the rainy season and over the beginning of the dry season that, from observation, there appears to be more illness than at any other time of the year. Under the head of recreation the lower level of expenditure in crop occurs on races, cricket and

football and lottery tickets, and it is a reasonable assumption that there was less of this type of entertainment while the crop was being reaped. There was no significant seasonal change in expenditure in any of the other items included under recreation — newspapers, cinema, postages, etc. Under transport expenditure was higher in hard times, in particular on 'bus fares. Here again it is a reasonable assumption that while the crop lasts people are working more steadily and probably do not do as much travelling by bus as in hard times. When the crop is over sugar workers in particular tend to take a rest, especially during the hot months of July, August, and September, and a fair amount of visiting relatives in other parts of the island occurs.

AN ASSESSMENT OF THE NUTRITIONAL VALUE OF THE DIET.^a

Presented in this section are the results of an attempt to assess the nutritional value of the diet of individuals in the "average" household covered in the Index of Retail Prices. All the quantities and prices (many of them government-controlled) of the food items purchased were collected at the time of the survey and it is therefore possible to make estimates of the amount of food consumed each week by the "average household". The number of persons per household varies substantially between income groups—from 2.26 persons in the \$0-\$4 weekly income group to 5.42 at the \$40-\$49 level—and contrary to the commonly held view that the households in the lower income levels are the largest, the households increase in size through the income scale until the households with an average weekly income of over \$50 a week are reached, where household size falls.

This holds broadly for all four survey areas, and thus for both urban and rural areas. The number of persons in the average household is 4.02. Further complexities arise out of the variations in the family structure in the sample households. It is, therefore, considered that the most meaningful picture which can be obtained from the data at present is on a per head per day basis, and in consequence, the nutrient values of the weekly food consumption figures of the "average household" have been reduced to this basis.

Two adjustments to the average weekly household expenditure pattern shown in Appendix I have been made before making the cal-

^a I am deeply indebted to Dr. Doreen Stafford for advice and assistance in the calculation of the nutrient values and in the assessment of the average diet. Without Dr. Stafford's help this section could not have been completed. Dr. Stafford is in no way responsible for the basic data from which the nutrient analysis was done and any errors therein are the responsibility of the author.

culation of quantities consumed for estimating the nutritional values. Firstly, expenditure on items shown under the head of Food bought and eaten away from home has been distributed proportionately among all the other items of food. Secondly, the quantities and values of home grown crops and livestock items produced and consumed by the households were not required for the Index of Retail Prices and this information has not yet been fully analysed. However, the data from a small sample of the households covered in the survey has been analysed and the average amount of home produced food consumed in these households has been added to the quantities of food purchased. The amounts of this food are indicated in Appendix II.

The nutrient analysis showing average daily consumption per capita is presented in Table 7 under nine main groups of food items. The nutrient values of the food quantities have been calculated partly from the latest publications of the United States Department of Agriculture on the composition of foods (6) (7), partly from Platt (10), and to a much smaller extent from information available in Barbados and in the Physiology Department of the University College of the West Indies. These nutrient values are based upon the nutrient obtained from one pound of food as purchased and do not make allowance for waste in actual cooking, left-overs, etc. The quantities of food in pounds consumed by the "average household" per week are indicated in Appendix III.

The age distribution of persons in the households is indicated in Table 8.

In Table 9 this daily consumption per capita is compared with the recommended scales laid down by the National Research Council (8). The National Research Council's scale has been modified by workers at the Institute of Nutrition Central America and Panama for use in varying climates. The recommended scale in Table 9 is based on an average temperature of 25° C and on the "average" man weighing 70 Kg., moderately active.

Given the basis of the figures it is doubtful if much significance can be attached to the slight deficiency which appears in the diet in terms of calories, protein, iron, thiamine, niacin and ascorbic acid. On the other hand significant deficiencies appear to exist in the average consumption of calcium, riboflavin and Vitamin A. It is usually recommended that the protein should be half of animal origin and half of vegetable. The average daily per capita consumption of protein indicates that there is a substantial deficiency of protein of animal origin, the proportion being 1:1.5 — Table 10.

TABLE 7. DAILY CONSUMPTION PER CAPITA EXPRESSED AS NUTRIENTS, MINERALS AND VITAMINS FROM 1 lb. AS PURCHASED.

	Calories	Protein gm.	Fat gm.	Carbohy- drate gm.	Calcium mg.	Iron mg.	Vitamin A I. Us.	Thiamine mg.	Ribo- flavin mg.	Niacin mg.	Ascorbic Acid mg.
ALL GROUPS	2590	60.85	75.09	420.8	485.6	11.50	1764.0	1.268	.870	11.325	63.565
Cereals and starchy roots, Fruits, etc.	1,207	28.02	7.02	254.5	154.8	4.29	167.6	.655	.340	6.500	38.415
a. Cereals	967	23.97	6.08	198.5	100.7	2.70	98.9	.441	.247	4.973	.003
b. Starchy roots, fruits, etc.	240	4.05	.94	56.0	54.1	1.59	68.7	.214	.093	1.527	38.412
Legumes	144	7.62	.46	27.6	28.0	1.73	58.2	.318	.069	1.259	3.876
Oil seeds and nuts	26	.22	2.68	.8	1.3	.11	12.9	.007	.006	.062	.808
Vegetables	11	.41	.06	2.4	11.3	.16	113.2	.014	.013	.135	5.443
Fruits	19	.26	.06	4.9	4.8	.13	386.0	.018	.012	.168	13.369
Fats and oils	295	.01	33.35	.01	.3	—	604.3	—	—	.002	—
Animal products	425	23.92	30.63	12.3	189.1	1.63	419.0	.253	.405	3.057	1.635
a. Fish	62	11.77	1.35	.1	20.1	.41	1.6	.020	.060	1.293	—
b. Meat and eggs	250	7.22	24.16	.1	6.0	1.12	187.8	.187	.104	1.626	.213
c. Milk and milk products	113	4.93	5.12	12.1	163.0	.10	229.6	.046	.241	.138	1.422
Sugar, syrups and preserves	446	.04	.17	114.8	92.1	3.12	2.1	—	.002	.002	.019
Beverages	17	.35	.67	3.4	3.9	.32	.7	.003	.023	.140	—

TABLE 8. AGE DISTRIBUTION OF PERSONS IN HOUSEHOLDS COVERED
IN NUTRITIONAL ANALYSIS

Age Group : Years % of total persons	Children			Boys		Girls		Boys		Girls		Males		Females	
	0-1	1-3	4-6	7-9	10-12	13-15	16-20	13-15	16-20	16-20	16-20	20+	20+	20+	20+
	2.31	7.66	7.59	7.98	6.79	2.67	3.47	3.29	5.42	5.42	5.42	20.34	20.34	32.48	32.48

TABLE 9. AVERAGE DAILY NUTRIENTS PER CAPITA: RECOMMENDED
SCALES.

	Calories	Protein gms.	Fat gms.	Carbo- hydrates gms.	Calcium mgs.	Iron mgs.	Vitamin A I. Us.	Thiamine mgs.	Ribo- flavin mgs.	Niacin mgs.	Ascorbic Acid mgs.
Average per capita	2590	60.85	75.09	420.8	485.6	11.5	1764.0	1.268	.870	11.325	63.565
Recommended scale	2618	70	—	—	1,000	12	5,000	1.3	1.8	13	75

TABLE 10. SOURCES OF CALORIES AND PROTEIN

	Calories	Protein	
Total	2590	60.85 gms	
	Percentages		
Cereals	37.4	39.4	}
Starchy roots and fruit	9.3	6.7	
Legumes, oil seeds and nuts	6.6	12.9	
Vegetables	0.4	0.7	
Fruit	0.7	0.4	
Fats and oils	11.4	—	}
Sugars and beverages	17.8	0.6	
Fish	2.4	19.3	}
Meat and eggs	9.6	11.9	
Milk and milk products	4.4	8.1	

No definite allowance is advised for fat which may make up to 20-25 per cent of total calorific value, and on the basis of 9 calories to the gram of fat, this condition is satisfied.

The daily per capita consumption in ounces is compared with that recommended by the Hot Springs Conference, Plan I, 1943 (9), (Table 11). From this analysis it is apparent that the consumption of animal products, milk, vegetables and fruit is inadequate, and this inadequacy confirms the findings of the nutrient analysis, since these items contain the animal protein, calcium, vitamin A and riboflavin in which the average diet is deficient.

TABLE 11. DAILY PER CAPITA CONSUMPTION: FOOD AS PURCHASED, OZ.

	Hot Springs	Average Diet
Cereals	10.1	10.2
Starchy roots, fruit, etc.	7.8	9.4
Legumes	1.05	1.42
Animal products	4.94	4.13
Milk	20.96	3.41
Fats	2.2	1.52
Vegetables and fruit	12.7	2.80
Sugars	1.54	5.00

There are two further sources of food which have not been included in our calculations. Firstly, there is in existence a scheme

to provide three-eighths of a pint of either fresh or powdered milk and two yeast biscuits to each child attending the island's 124 public elementary schools, and for all children under 5 years of age who accompany their older brothers and sisters to school. An estimate has been made of the nutrient value added to the diet arising from the scheme. In the average household used for the calculations in Table 7 there were 1.38 persons in the age groups 0-14; the scheme operates for 190 days of the year. On the very optimistic assumption that all children within these age limits consume the milk and yeast biscuits then the addition to their average daily diet (based on 365 days) is that indicated in Table 12.^a

Secondly, in crop many people are observed chewing sugar cane. No precise information is available from the surveys of this item but it is possible to get some idea of the nutrient involved. In Jamaica an experiment was carried out to throw some light on this. The amount of cane between one joint and the next on an average piece of cane gave about 50 grams of juice when thoroughly chewed.^b Assuming that in crop season the average person were to chew twice this amount per day, then the addition to the nutrient value of the diet would be that indicated in Table 12. Thus although certain sections of the community do receive significant added amounts of nutrient from these sources, particularly of the deficiency items, these additions are only small in relation to the total deficiency, and the general findings are not affected to any appreciable extent.

One further factor which would appear relevant is that the analysis of the water supplies in Barbados indicates a relatively high calcium content — 81 parts per million.^c Given the warm climate of Barbados it is possible that the absorption rate of calcium from this source is fairly high, and thus there may well be an addition to the intake of calcium which would slightly lessen the shortage which has emerged from the analysis of the diet.

The deficiencies which have emerged in the average diet can be compared with those found by Platt in 1944 (10) when he examined the daily per capita diet in Barbados on the basis of an evaluation of total food supplies.

Platt's estimate was based on war-time consumption when the pattern would be affected by particular shortages. For instance in

^a No analysis of the nutrient value of the yeast biscuits is available. The figures are estimates calculated from data kindly supplied by the manufacturers, The West India Biscuit Co., Ltd., Barbados.

^b Experiment carried out in Physiology Department, University College of the West Indies in connection with dietary survey in Jamaica.

^c Information supplied by the Government Analyst, Barbados.

TABLE 12. NUTRIENTS FROM OTHER SOURCES

	Fresh milk in school	Yeast biscuits in school	Sugar cane
Calories	83	38	55
Protein gms.	4.28	2.62	.20
Fat gms.	4.77	.27	—
Carbohydrates gms.	5.9	7.8	14.1
Calcium mgs.	144.4	2.5	19
Iron mgs.	.081	.275	1.200
Vitamin A I. Us.	193.9	—	10
Thiamine mgs.	.043	.014	.020
Riboflavin mgs.	.210	.028	.010
Niacin mgs.	.135	.231	.100
Ascorbic mgs.	1.612	—	—

1944 the amount of rice available daily per head was half what it had been in 1937. There had also been a reduction in the imported supplies of flour. Further, plantations were required to produce ground provisions from a proportion of their land to make up for possible shortages of imported foods, this proportion varying from a maximum of 35 per cent in the war years to 26 per cent at the time of the field surveys. The effect of this, especially in the war years, was a higher consumption of starchy roots. Despite these effects, however, the results based on the sample survey indicate only a possible slight deficiency in total, but a large insufficiency from animal sources.

A considerable difference in the results of the sample survey and Platt's findings emerge on the supply of Vitamin A. Platt found a sufficiency, the main source being starchy roots and fruit, which pro-

vided 82 per cent of the supply. It would seem that sufficient vitamin A from this source can only be obtained if a large proportion of the sweet potatoes consumed are of the yellow variety, since the white varieties contain none of this vitamin. In his calculations Platt allowed for about one-third to one-half of the total supply of sweet potatoes in Barbados being yellow varieties ^a.

According to the Department of Agriculture in Barbados yellow sweet potatoes are not produced in any large quantity. The yellow varieties are not grown commercially by the big plantations because the yield per acre is much less than the white variety, thus making the production a non-paying proposition. In consequence in our assessment of the average diet we have assumed that the sweet potatoes consumed are of the white varieties with the result that a deficiency of Vitamin A appears when compared with Platt's estimates.

It should be observed that from the clinical evidence he obtained Platt (10) points out that there was little evidence of Vitamin A deficiency in Barbados, but he also notes that "on several grounds it seems probable that there is a shortage of Vitamin A or its precursors in many of the poorer dietaries". If any more accurate picture of this problem is to be obtained it would appear necessary for further research to be carried out both on a clinical and dietary basis; although there is evidence that in order to obtain physiological efficiency, to the extent that this can be achieved by good feeding, it is necessary to feed on a higher nutritional plane than is required merely to eliminate clinical signs of malnutrition.

A close similarity between Barbados and Trinidad emerges from a broad comparison of certain figures of per capita food consumption (11). Per capita consumption in terms of calories per day was 2,577 in 1952 in Trinidad compared with our estimate of 2,590 in Barbados. Protein consumption amounted to 59.67 grams in Trinidad and 60.85 in Barbados. In both territories there was an insufficiency of much the same order of magnitude in the intake of protein of animal origin.

In the broadest comparative terms and on the basis of the average calories per head per day from food supplies at the retail level Barbados again emerges in an intermediate stage between the wealthier communities of the world, where the average number of calories available per head per day is over 3,000 and the poorer communities, which contain the largest part of the world's population, and where the number of calories may be 2,000 or below (Table 13).

^a Information supplied by Miss M. W. Grant, Applied Nutrition Unit, London School of Hygiene and Tropical Medicine.

TABLE 13. CALORIES PER HEAD PER DAY FROM FOOD SUPPLIES
AT RETAIL LEVEL 1950-51 (1)

Country	Calories per head per day
Canada	3,237
Denmark	3,126
U.K. ^a	3,098
Brazil ^b	2,343
Japan	2,100
Ceylon	2,057
India	1,572
Barbados	2,590

^a Excluding N. Ireland^b 1948/49

The figures presented have been based upon the daily per capita consumption in the "average" household defined for our present purposes as those households in which the average weekly household income was between \$0 and \$49 and thus the highest income groups in the community have been excluded. This average household's weekly expenditure amounted to \$16.83, of which \$8.55 was spent on food. We have seen that there are certain deficiencies in the diet of the persons in this average household. At a later date it may prove possible to carry out a similar analysis of the nutritional value of the diets of the households in the different income groups. At the present stage only a broad indication can be given of the distribution of the households round the average expenditure pattern which has been used here. The weekly household expenditure on food in the different income groups has been reduced to a per capita basis (Table 14) from which it is clear that the average weekly per capita expenditure on food was less in the two lowest income groups than in the average household, not only in total but on each main food group, with the exception of condiments and spices, a group of only small significance. Only very minor differences occur between the average per capita expenditure in the \$10 — \$19 weekly income group and the per capita expenditure in the average household used as the basis for the index. This is not surprising since some 38 per cent of all households used in the calculations to formulate the basis of the index were in this income range.

The dietary deficiencies, it will be remembered, arose out of a shortage of fruit, vegetables, milk and an insufficiency of protein of animal origin. It is possible that small changes in the actual items consumed within these deficiency groups occur in the lower income levels and that there is some effect arising from the smaller number of persons in the households and that in consequence the nutrient values would be a little different, but it is improbable, given

TABLE 14. AVERAGE WEEKLY FOOD EXPENDITURE BY INCOME GROUPS: PER CAPITA

Average weekly household income Group — Dollars	0 - 4	5 - 9	10 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 - 89	90 - 99	100 +	Average household used as basis for index retail prices (0 - 49 dollars)
Number of households	217	303	505	175	100	36	54	16	10	1,336			
Average number of persons per household	2.26	3.35	4.31	4.91	5.28	5.42	5.33	5.20	3.90	4.02			
Dollars and cents													
Average weekly expenditure on:—													
Meat and fish	35	42	54	64	85	82	1.35	1.54	2.17	54			
Grain products, peas and beans	45	47	57	60	71	68	89	88	1.21	55			
Vegetables	18	15	22	23	31	25	45	58	99	21			
Fruits	05	04	06	08	10	13	18	24	67	06			
Sweets	15	13	14	16	19	18	23	23	31	15			
Dairy products, oils and fats	37	33	41	47	65	78	1.08	1.22	2.57	43			
Proprietary foods	—	01	02	04	05	10	08	16	18	02			
Condiments, spices, etc.	03	03	03	03	05	05	06	04	10	03			
Beverages	12	11	14	18	22	26	30	31	59	14			
Total	1.70	1.69	2.13	2.43	3.13	3.25	4.62	5.20	8.79	2.13			

TABLE 15. EXPENDITURE PER HEAD ON NINE FOOD GROUPS AS A PERCENTAGE OF TOTAL INCREASE IN FOOD EXPENDITURE BETWEEN INCOME GROUPS

Average weekly household income group.											
	\$ 0 — 4	5 — 9	10 — 19	20 — 29	30 — 39	40 — 49	50 — 74	75 — 99	100 +		
Number of households	217	303	505	175	100	36	54	16	10		
Average number of persons per household	2.26	3.35	4.31	4.91	5.28	5.42	5.33	5.20	3.90		
Average weekly food expenditure per capita —cents.											
										Percentages	Percentage increase in per capita expenditure between the lowest and highest income groups.
Meat and fish	35	+700*	+27.3	+33.3	+30.0	-25	+38.7	+32.8	+17.5		620
Grain products, peas and beans	45	+200	+22.7	+10.0	+15.7	-25	+15.3	-1.7	+9.2		269
Vegetables	18	-300	+15.9	+3.3	+11.4	-50	+14.6	+22.4	+11.4		550
Fruits	5	-100	+4.5	+6.7	+2.9	+25	+3.7	+10.3	+12.0		1,340
Sweets	15	-200	+2.3	+6.7	+4.3	-8.3	+3.7	0	+2.2		207
Dairy products, oils and fats	37	-400	+18.2	+20.0	+25.7	+108.3	+21.9	+24.1	+37.6		695
Proprietary foods	—	+100	+2.3	+6.7	+1.4	+41.7	-1.5	+13.8	+0.6		1,800
Condiments, spices etc.	3	0	0	0	+2.9	0	+0.7	-3.4	+1.7		333
Beverages	12	-100	+6.8	+13.3	+5.7	+33.3	+2.9	+1.7	+7.8		492
		-100	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

* Percentages in this column are large because the change in total expenditure (Table 14) is very small.

the orders of magnitude of money expenditure, that the alteration would be substantial enough to nullify the general conclusion that the nutritional value of the food expenditure in the two lowest income groups is less than that in our average household. Thus we can say that in 520 (39 per cent) of the households used for the Index of Retail Price calculations the average daily per capita diet probably had more serious deficiencies than those found in the average household. Further, the daily per capita expenditure on food in the income group \$10—\$19 was almost identical with that in the average household, and thus a further large proportion of the persons in the households in this income group had dietary deficiencies at least as serious, and in some cases probably more serious, than those found in the average household. Thus a conservative estimate suggests that in at least 50 per cent of the households the members had diets with more serious deficiencies than those found in the average household.

A further examination of the pattern of weekly expenditure per capita through the income scale on the nine groups of food items throws light on several interesting features and relationships (Fig 1). Weekly expenditure per capita was highest on Grain products, peas and beans in almost all the households where the average weekly household income was below \$20, and this range included about 72 per cent of all households in the sample surveys, and 77 per cent of those covered by the Index of Retail Prices.

Above this income level the Meat and fish group becomes the most important food expenditure item, and remains so until the higher levels of weekly household income are reached. At weekly income levels of over \$100 expenditure on the Dairy products, oils and fats items exceeds that on the Meat and fish group. Weekly per capita expenditure on Dairy products does not exceed that on the Grain products group until average weekly household income reaches nearly \$40, after which the rate of increase in expenditure on Grain products declines while that on Dairy products increases.

Expenditure on Vegetables increases only slowly at the lower levels of income, the rate rising after household incomes exceed \$50 per week. On Fruits the increase in per capita expenditure is only slight in the income groups below \$40 per week; thereafter the rate of expenditure rises more rapidly. Weekly per capita expenditure on Sweets changes only slowly through the income scale, just about doubling between the lowest and highest income levels.

In Table 15 is shown the percentage of total increase by income groups in weekly food expenditure per head spent on nine food groups. In all weekly household income groups the largest propor-

eration
n that
est in-
we can
dex of
obably
house-
he in-
verage
in the
east as
found
uggests
d diets
house-

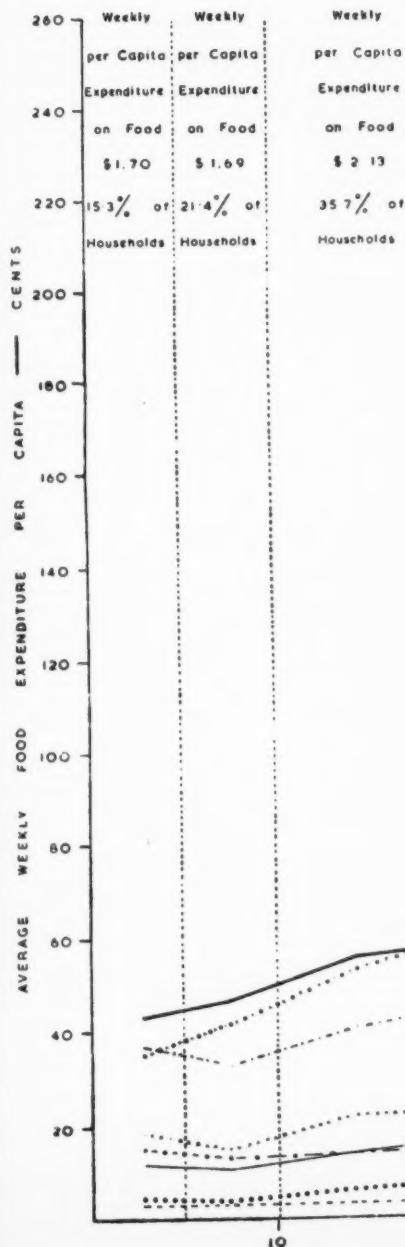
are per
items
Fig 1).
s, peas
weekly
out 72
cent of

es the
til the
weekly
ts, oils
kly per
on the
eaches
Grain

lower
exceed
ture is
ter the
nditure
about

income
e food
propor-

AVERAGE



VERAGE WEEKLY EXPENDITURE ON MAIN GI PER

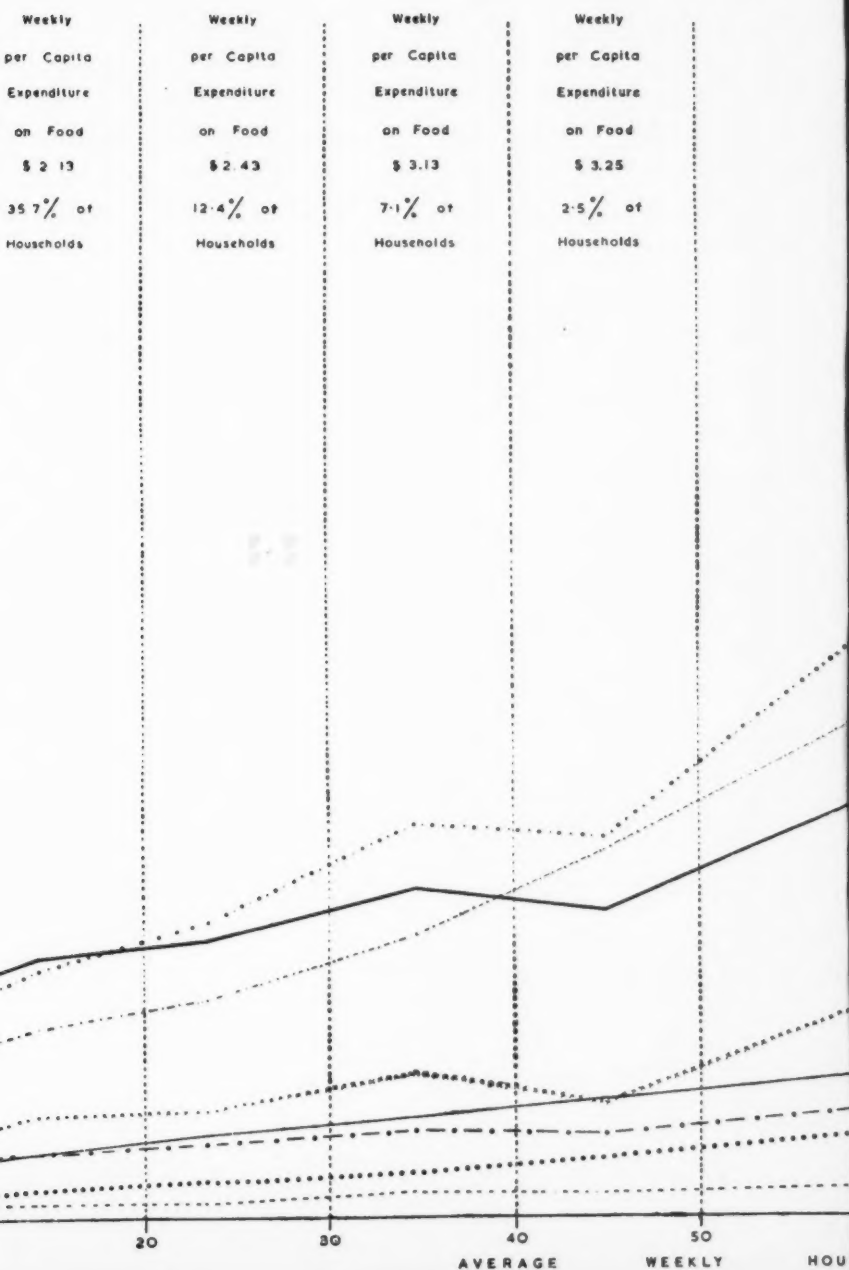


Fig. 1. Average weekly expenditure on main

WEEKLY EXPENDITURE ON MAIN GROUPS OF FOOD ITEMS PER CAPITA

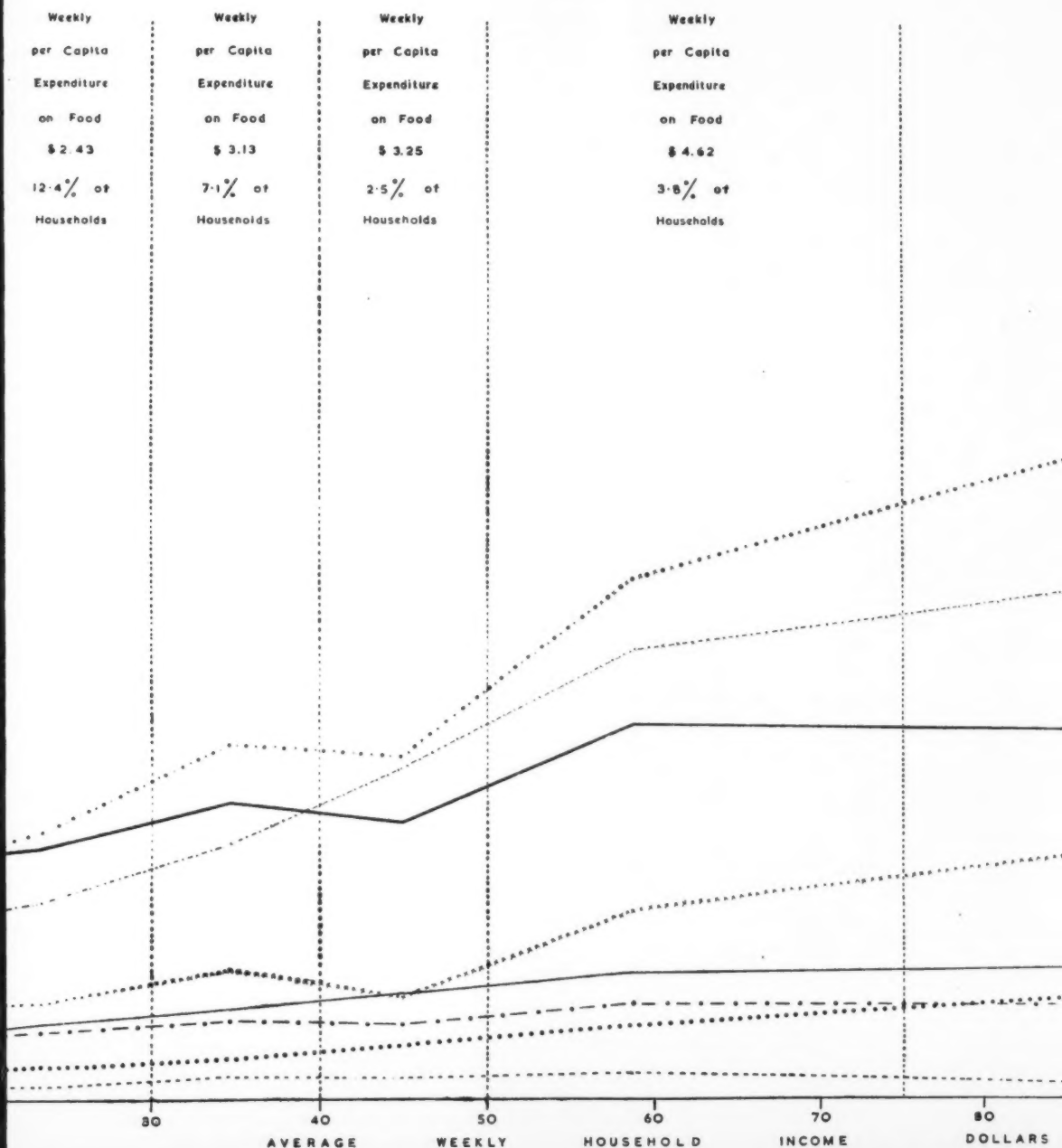
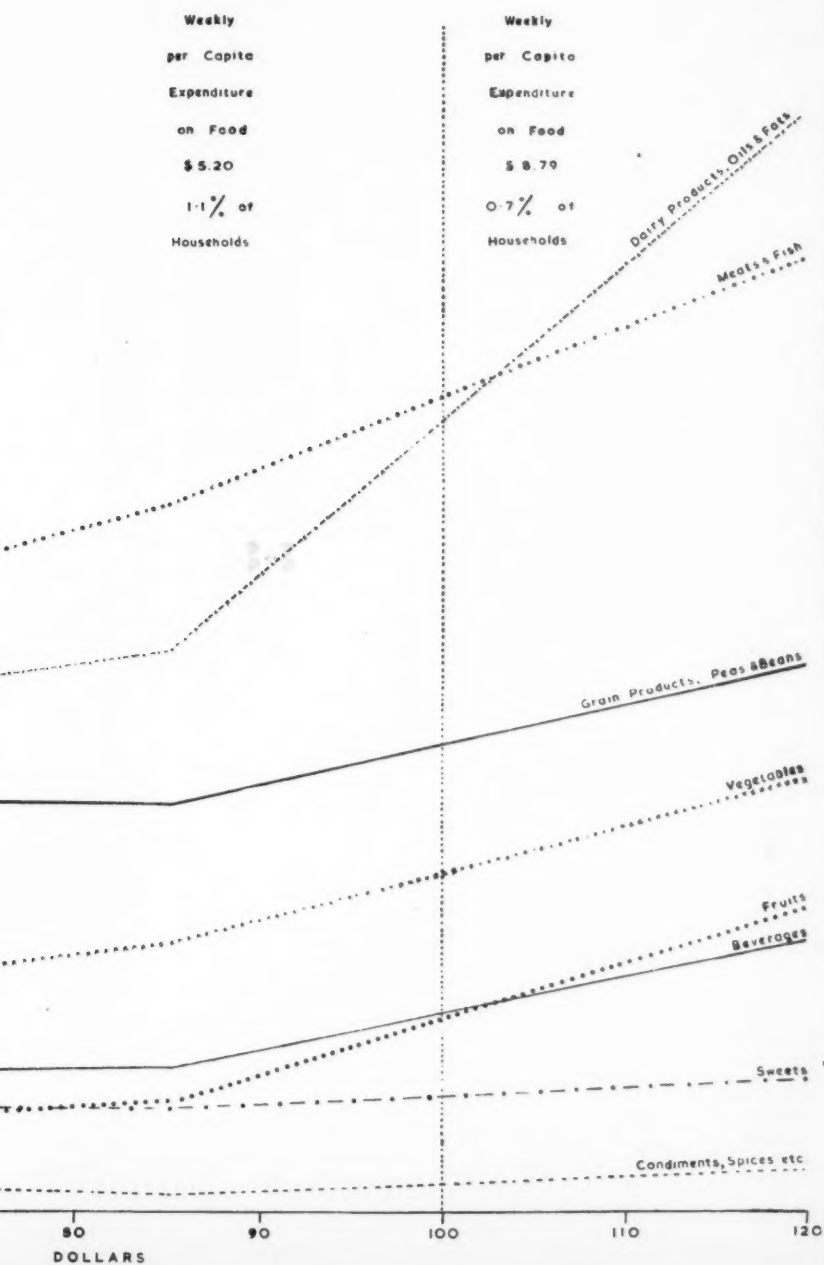


Fig. 1. Average weekly expenditure on main groups of food items by income groups

ITEMS BY INCOME GROUPS



tic
ce
lev
bi
oc
pr
we
an
pe
(1
fis

we
He
th
pr
on
an
fu
th
tra
lev
sch
inc
fro
me
ad
lin
inc
an
at
ite

wi
th
pa
see
be
an
th
to
th

tion of extra expenditure was spent on Meat and fish with the exception of the \$40 — \$49 and \$100 plus groups; at these latter income levels the largest proportionate increase was on Dairy products. The biggest proportionate increases in expenditure on Grain products occurred at levels below \$40 per week, while in the case of Dairy products and Fruits the largest increases occurred at over \$40 per week. Between the households in the lowest weekly income group and the highest the largest proportionate increase in per capita expenditure was on Proprietary foods, followed by expenditure on Fruits (1,300 per cent increase), Dairy products (700 per cent) Meat and fish (600 per cent) and Vegetables (550 per cent).

A most noticeable break in the pattern of the increases in weekly per capita expenditure occurs about the \$40—\$49 income level. Here the data indicate large declines in expenditure, compared with the lower income group, on Vegetables, Meat and fish and Grain products, and an extremely large increase in expenditure per capita on Dairy products, and considerable increases on Proprietary Foods and Fruits. More detailed analysis at a later date may throw some further light on this problem, but it would appear highly probable that the explanation lies in the nature of the households and in the training and occupations of the members. It is about this income level that the main wage-earner in many households is an elementary school teacher, a civil servant or skilled artisan, and the evidence indicates that their consumption pattern marks a substantial change from the more typical Barbadian pattern and begins to approach the more "Western" type of the higher income levels. For instance, in addition to this alteration in the pattern of food expenditure, preliminary results indicate that although the households in this weekly income level (\$40 — \$49) spent a slightly smaller proportion of their income on food than did those in the preceding lower income level and also a smaller proportion on clothes, a relatively large proportionate increase occurred in expenditure on recreation and miscellaneous items.

It is not possible on the basis of the data presented to indicate with any high degree of accuracy at what point in the income scale the dietary shortages are likely to disappear, but on the basis of the pattern of per capita expenditure on the main food groups it would seem a reasonable and conservative inference that it cannot happen before the average weekly household income reaches between \$40 and \$49 a week, and even at this income level it seems improbable that the per capita expenditure on Vegetables and Fruits is sufficient to overcome the shortages arising from the low consumption level of these two groups of food items.

SUMMARY

1. The weekly expenditure of the "average" household, which was based on returns from 94.3 per cent of the total sample households, amounted to \$16.83. Of this amount 51 per cent was expended on Food, 18 per cent on Miscellaneous items, 14 per cent on Clothing, 8 per cent on Housing, 5 per cent on Fuel and light and 4 per cent on Household supplies and durable goods.
2. The seasonal differences occur in the Food, Clothing and Miscellaneous categories of expenditure, but the higher level of earnings in crop does not give rise to such changes in the pattern of consumption as might be expected. During the 'hard' times survey period many households received lump sum payments from various sources, and also incurred debts, with the result that the expenditure pattern remained reasonably constant throughout crop and hard times.
3. The results of calculating the nutrient values of the food quantities indicate a shortage of calcium, riboflavin, Vitamin A and of protein of animal origin, and further analysis shows a shortage of milk, animal products, vegetables and fruit which contain these nutrients.
4. On the basis of per capita income, the proportion of consumption expenditure on food, and in terms of average calories per head per day, Barbados is in an intermediate stage between the wealthier communities and the poorer communities of the world — a good deal better off than the poorer half of the world but a long way short of the richer.
5. On the basis of per capita figures the broad mass of the population of Barbados appears to have a very similar food consumption pattern, with the Grain products, peas and beans group the most important food expenditure item.

APPENDIX I

AVERAGE WEEKLY HOUSEHOLD EXPENDITURE PATTERN OF 1,336 HOUSEHOLDS, WITH AN AVERAGE WEEKLY INCOME OF BETWEEN \$0 AND \$49, WEIGHTED FOR CROP AND HARD TIMES.

(Expenditure of "00" cents indicates that expenditure was incurred under this item but the average weekly amount totalled less than half of one cent)

	\$	c		\$	c
HOUSING	1	31	FOOD	8	55
Fuel and light		88	Meat and fish	2	07
Firewood		24	Fresh beef		28
Charcoal		19	Fresh pork		32
Kerosene Oil		33	Fresh mutton		09
Gas		01	Veal and liver		02
Electricity		05	Salt beef		09
Petrol		01	Salt pork		12
Candles		00	Other salt meat		24
Matches		05	Soup meat		01
Other		00	Sausages		01
			Ham		01
			Bacon		01
Household supplies and durable goods		72	Canned meat		04
Water		01	Flying fish		23
Disinfectants, insecticides, etc.		05	Red fish		01
Household soap		28	King fish		01
Starch		08	Dolphin		02
Household paper		02	Other fresh fish		08
Polishes		03	Smoked or pickled fish		01
Ice		09	Salt fish		24
Cleaning items		01	Canned salmon		08
Wooden chairs		01	Canned sardines		06
Beds and cots		02	Other canned fish		04
Rugs		00	Poultry		01
Blankets		01	Rabbits		00
Sheets		00	Black pudding and Souse		04
Pillow cases		00	Other		00
Bedspreads		01	Grain products, peas and beans	2	08
Table cloths		00	Wheat flour		22
Table mats		00	Cassava flour		01
Curtains		00	Indian corn		02
Towels		01	Cornmeal		20
Oilcloth		01	Oatmeal		02
Cloth for making furnishings		01	Bread		41
Cost of making furnishings		01	Square biscuits		15
Electric bulbs		00	Other biscuits		06
Oil stove		01	Cakes		04
Coalpot		01	Rice		64
Frying pan		00	Fresh peas		10
Saucepans		00	Dried peas		12
Knives		00	Fresh beans		01
Forks		00	Dried beans		01
Spoons		00	Other cereals		07
Cups (enamel)		00			
Plates		00	Vegetables		79
Bowls		00	Yams		05
Glasses		01	Eddoes		01
Oil lamps		00			
Other		05			

	\$	c		\$	c
FOOD (Cont'd.)					
Vegetables			Beverages		54
Breadfruit	03		Cocoa and chocolate	16	
Cassava	00		Green tea	14	
Sweet Potatoes	16		Bush tea	01	
Irish potatoes	19		Coffee	04	
Green bananas	01		Soft drinks (bottled)	15	
Plantains	01		Soft drinks (home made)	02	
Tomatoes	05		Other	02	
Onions	18				
Okras	04		Food bought and eaten		
Green and yellow vegetables	05		away from home	44	
Other	01		Meals at school	06	
Fruit	23		Meals at work	23	
Citrus	08		Meals elsewhere	07	
Bananas (ripe)	05		Other	08	
Coconuts	04				
Papaw	00		CLOTHING	2	34
Mangoes	02		Men's and Boys'	1	12
Avocado pear	03		Suits	13	
Soursop	00		Trousers (Khaki)	07	
Pineapple	00		Trousers (all other)	10	
Canned fruit	00		Shirts (Khaki)	13	
Other	01		Shirts (other)	15	
Sweets	56		Overalls	01	
Sugar	53		Shoes	17	
Molasses and Sling	00		Hats	03	
Sweets	01		Caps	01	
Jam and marmalade	01		Socks	01	
Chocolate	01		Handkerchiefs	00	
Other	00		Pyjamas	06	
Dairy products, oils			Ties	00	
and fats	1	62	Underwear	03	
Eggs	05		Belts	00	
Fresh milk	36		Cloth for making and		
Condensed milk	26		repairing garments	17	
Milk (powdered)	06		Thread, buttons, etc.	00	
Milk (evaporated)	01		Cost of making or		
Cheese	06		repairing garments	04	
Table butter	07		Other	01	
Cooking butter	27		Women's, girls' and infants' 1	22	
Table margarine	01		Blouses	00	
Cooking margarine	04		Skirts	00	
Lard	03		Dresses	56	
Cooking oil	35		Stockings	02	
Cod liver oil	04		Socks	02	
Other	01		Shoes	10	
Proprietary foods	09		Handkerchiefs	00	
Condiments, spices, etc.	13		Handbags	02	
Salt	07		Umbrellas	00	
Pepper	01		Hats	08	
Mustard	01		Belts	00	
Tomato sauce	00		Hairpins and hair ornaments	00	
Hot sauce	03		Garters	00	
Other	01		Panties	04	
			Brassieres	00	
			Corsets	00	

BUDGETS AND NUTRITION

35

	\$	c		\$	c
CLOTHING (Cont'd.)					
Slips		05	Cinema		04
Sleeping garments		03	Races, cricket, football		05
Rompers		01	Lottery tickets		08
Jewellery and accessories		00	Sheet music, records, etc.		00
Cloth for making and repairing garments		20	Postages		02
Thread, buttons, etc.		03	Radio		01
Cost of making or repairing garments		05	Rediffusion		02
Other		01	Other		01
			Transport		40
MISCELLANEOUS			Bus fares		25
EXPENSES	3	03	Motor car		09
Medical care		58	Bicycle		05
Drugs and medicine		23	Animal transport		01
Appliances		02			
Doctor		21	Garden, plot, etc.		29
Dentist		08	Feed, seeds, plants, fertilizer		26
Nurse		02	Agric. tools, equipment		01
Other		02	Other		02
Personal care		36	Other expenses		61
Hair-cuts, waves, washing		02	School		03
Toilet soap		14	Licences		01
Toothpaste, mouthwashes, etc.		06	Life insurances, pension contributions		01
Combs, brushes, razors		03	Insurance, household effects		01
Cosmetics and toilet preparations		04	Contributions to Church and other religious organizations		04
Other		01	Gifts and other contributions		06
Drinks and tobacco		49	Friendly society		18
Rum		17	Funeral expenses		04
Beer and other alcoholic drinks		11	Club dues		00
Cigars, cigarettes, tobacco		21	Trade Union dues		01
Recreation		30	Laundry		06
Newspapers		05	Dry Cleaning		02
Magazines		01	Domestic help		08
Books		01	Other		06

APPENDIX II.

ESTIMATED QUANTITIES OF HOME-PRODUCED FOOD CONSUMED
IN THE "AVERAGE" HOUSEHOLD PER WEEK

ITEM	QUANTITIES Lbs.
Meat	.021
Poultry	.100
Peas	.200
Yams	1.750
Eddoes	.250
Breadfruit	1.000
Sweet potatoes	1.000
Plantain	.085
Citrus	.100
Bananas	.475
Coconut	.042
Papaw	.125
Mango	.045
Avocado pear	.010
Guava	.100
Eggs	.250
Milk	.834

These figures are based on a small number of the sample households covered in the survey and thus the "average" includes households in which the amount produced for home consumption varies between relatively large and nothing at all.

APPENDIX III

QUANTITIES OF FOOD CONSUMED BY THE "AVERAGE" HOUSEHOLD
PER WEEK.

(Based on 1,336 households, with average weekly household income between \$0 and \$49)

Item.	Quantity lbs.	Item.	Quantity lbs.
I. Meat and fish		Salt and pickled fish	1.318
Fresh beef	.667	Canned salmon	.125
Fresh pork	.857	Canned sardines	.075
Fresh mutton	.187	Other canned fish	.067
Veal and liver	.037	Poultry	.101
Salt beef	.214	Rabbits	—
Salt pork	.424	Black pudding	
Other salt meat	1.077	and Souse	.125
Soup meat	.028		
Sausages	.025	II Grain products, peas and beans	
Ham	.017	Wheat flour	3.000
Bacon	.008	Cassava flour	.170
Canned meat	.067	Indian corn	.330
Fresh fish	1.542		

Item.	Quantity	Item.	Quantity
II. Grain products, peas and beans (contd)		V. Sweets	
	lbs		lbs
Cornmeal	1.830	Sugar	7.375
Oatmeal	.250	Molasses and Sling	—
Bread	2.636	Sweets	.087
Square biscuits	1.500	Jam and marmalade	.021
Other biscuits	.125	Chocolate	.007
Cakes	.125		
Rice	7.714	VI. Dairy products, oils and fats	
Fresh peas	.650	Eggs	.328
Dried peas	1.333	Fresh milk	5.001
Fresh beans	.056	Condensed milk	.772
Dried beans	.034	Powdered milk	.207
Other cereals	.875	Evaporated milk	.027
		Cheese	.063
III. Vegetables		Butter	.100
		Cooking butter	.323
Yams	3.500	Table margarine	.016
Eddoes	.500	Cooking margarine	.077
Breadfruit	2.500	Lard	.063
Cassava	.015	Cooking oil	1.560
Sweet potatoes	7.000	Cod liver oil	.043
Irish potatoes	1.750		
Green bananas	1.000	VII. Proprietary foods	
Plantain	.170	Ovaltine,)	
Tomatoes	.334	Horlick's, etc) estimate	.050
Onions	1.000		
Okras	.500		
Green and yellow vegetables	143		
		VIII. Condiments, spices, etc.	
IV. Fruit		Salt,)	not
		Pepper,)	estimated
Orange	.250	Mustard,)	as little
Lime	.125	Hot sauce)	nutrient
Grapefruit	.125	Tomato sauce)	value
Bananas	1.100		
Papaw	.516	IX. Drinks	
Mangoes	.334	Cocoa	.173
Avocado pear	.375	Tea	.077
Soursop	—	Carbonated beverages	1.0625
Pineapple	—	Alcoholic drinks (not estimated)	
Canned fruit	—		

Notes:

1. A dash indicates that the average household expended less than $\frac{1}{2}$ of 1¢ per week and amounts were not calculated.
2. Quantities of food grown and consumed at home are included.
3. Money expenditures on food consumed away from home have been divided proportionally among all items of food and are, in consequence, reflected in these quantity figures.

REFERENCES

1. International Labour Office, Geneva. *Year Book of labour Statistics*, 1951-52.
2. Statistical office of the United Nations (1949) *Statistical papers. Series E. No. 1. National and per capita incomes. Seventy countries.*
3. STRAW, K. H. *Preliminary results of a survey of income and consumption patterns in Barbados.* Social and Economic Studies, Vol. 1, No. 4. Institute of Social and Economic Research, University College of the West Indies, Jamaica.
4. WELLS, A. F. and D. (1953) *Friendly Societies in the West Indies.* H.M.S.O.
5. Registrar of Friendly Societies, Barbados. *Annual Report*, 1950.
6. U.S. Department of Agriculture—*Agriculture Handbook No. 8.* Washington, D.C., June 1950.
7. U.S. Department of Agriculture—*Agriculture Handbook No. 34.* Washington, D.C., March 1952.
8. National Research Council. *Recommended dietary allowances.* Reprint and circular series. No. 129. Revised 1948. Washington, D.C.
9. U.N. Hot Springs (1943) *Conference on food and agriculture.* Cmd. 6461. H.M.S.O.,
10. PLATT, B. S. *Nutrition in the British West Indies.* (1946) Colonial No. 195, H.M.S.O.
11. Government of Trinidad and Tobago, Central Statistical Office, (1953), *Annual statistical digest No. 2 1935-1952.* Table 84.

1.
on
of
a.
O.
C.,
C.,
nd
D.,
95,
ual

THE SIGNIFICANCE OF TRANSPORT IN THE JAMAICAN ECONOMY: AN ESTIMATE OF GROSS EXPENDITURE ON INTERNAL TRANSPORT.

By

W. F. MAUNDER

For a variety of reasons it is desirable to have some quantitative knowledge of the overall importance of transport in an economy, both as an aggregate to compare with national income estimates and also broken down into the leading constituent categories in order to assess their relative importance within the transport sector. An obvious example of the use of such information is in development planning to enable a sensible relationship to be preserved, for instance, in the allocation of investment resources between various lines. It may also have direct usefulness in the assessment of fiscal policy by permitting some effects of taxation and subsidies to be put in perspective. From another angle, an analysis of this kind is of interest for showing both the volume of incomes generated in the transport sector and the magnitude of transport costs as an element in the total consumption of goods and services. It has also been suggested that the proportion of a country's resources which is devoted to services, such as transport and distribution, is an index to its economic development; the following estimates may be of use for both international and inter-temporal comparisons in the future. Yet again, the conclusions reached in this section show transport to be of such major importance that it may serve to focus attention on a possible scope for saving through increased efficiency.

The method employed in this paper is essentially that used by Ernest Rudd for a similar estimate in Great Britain (8). In outline, gross totals for expenditure on the main categories of internal transport are calculated, for the financial year April 1, 1950 to March 31, 1951 (this is signified as 1950-51 throughout the paper). The use of the calendar year would have been preferable to the financial year, but the latter was virtually imposed by the basis on which most of the basic data were given. In any case the margin of error in the whole exercise is considerable and there is no significant difference within these limits between the financial and the calendar year; in other words, the orders of magnitude which are all that the calculations are intended to indicate, can certainly be applied to the calendar year without any greater errors than are involved already.

The categories of transport used in this study are:

- (1) road passenger and freight transport, excluding Jamaica Utilities, Ltd. and commercial transport by motor car, i.e., taxis, etc.;
- (2) Jamaica Utilities, Ltd., i.e., the company operating the Kingston public passenger transport system at that time;
- (3) motor cars, (the major part of the category consisting of private motoring, but taxis, private hire cars and cars used for business purposes are also included);
- (4) motor cycles;
- (5) bicycles;
- (6) railway transport.

Transport by animal drawn carts has had to be excluded for want of any adequate knowledge of the costs involved; moreover, whilst it is still a sizeable factor in Jamaican transport, such things as farm use and off-farm use are so inextricably interwoven that the picture as between transport proper and agricultural production would be blurred. It seemed preferable, therefore, to confine the estimate to 'mechanical vehicles' used in internal transport and so preserve a clear-cut concept. In interpreting the gross total island expenditure this exception has to be borne in mind and it results in a downward bias when relating the aggregate to national income estimates which attempt to include subsistence production and production for very local marketing.

The first estimates are all made in terms of gross expenditure (or gross output) at market prices but summary tables are included at the end converted to factor cost, and also the net output implied is briefly examined. It should be observed that the concept of expenditure employed is consumer expenditure; this statement may be necessary to avoid confusion in that most categories are evaluated in terms of operators' expenditure but this is merely a device for arriving at their receipts, i.e., the expenditure on the consumption of the services provided. Moreover, the estimate of consumer expenditure is freed of duplication as far as possible so that it represents purchases by all buyers outside the transport sector of the economy.

The sources of data from which the estimates have been made are well short of ideal and official statistics had to be liberally supplemented by special investigations, all of a make-shift variety. No scientific sampling methods have been employed as the expense involved in terms of time and money would have been out of all proportion to the usefulness of the end result. The following is a summary of the types of information employed and they are discussed more fully under the appropriate heads:

(a) Official statistics: the Annual Reports of the Collector General (2) and the Island Traffic Authority (6) which give details of vehicle registrations, licences granted and Road Fund revenue collected, the Annual Reports of the Jamaica Government Railway (7) and the External Trade of Jamaica (1), giving imports of transport equipment. In addition the Collector General's office, the Jamaica Government Railway, the Island Traffic Authority and the Central Bureau of Statistics have all been very helpful in supplementing the published data in the publications listed. The balance sheets of Jamaica Utilities, Ltd. may also be included in this group.

(b) Official reports: the Report of the Select Committee appointed by the House of Representatives to enquire into the margins of profit on motor cars and motor car parts (4) and a report on the costs involved for civil servants using private cars for official purposes (unpublished).

(c) Information supplied privately by various sections of the industry: data have been obtained from garages and dealers, tyre distributors, petroleum companies and insurance societies.

(d) Special investigations among different classes of vehicle operators.

(e) Tables of operating costs for all types of commercial vehicles compiled by the *Commercial Motor* from the experience of U.K. operators (3).

As a precaution against misuse the procedure has been followed of inserting an estimate of the likely error against main totals. No pretence can be made, of course, to a precise error statement as understood in scientific sampling, but since the whole use of a set of estimates of this kind depends upon the margin of accuracy that can be put on the results, its assessment is vital. Rather than leave this to the user, it is felt to be a preferable course for the compiler to give his estimate of the likely error; generally speaking, he is in a better position than anybody else to do so. The error statement, of course, rests very largely on personal judgment but the mere indication of error limits is likely to discourage a too glib use of the results.

It should be clearly recognized that often the most vital facts are the least securely based and the sources of all calculations are disclosed as fully as possible for each category in order that the reliability of any individual estimate can be assessed. In these circumstances the argument is commonly advanced that it is more harmful to attempt any exercise for which there are not available fully adequate data than to admit that it cannot be done and to forego the advantages of having even rough knowledge, which, from this standpoint, are said to be the disadvantages of having possibly misleading

knowledge. Clearly there is much substance to this contention and it cannot be over-emphasized that tentative estimates must be treated with discretion. However, the fact that a tool may be dangerous in inexperienced hands has not acted as a deterrent in any field of activity and the contrary view that 'nothing ventured is nothing gained' is of great weight in an underdeveloped economy. Before development plans can be seriously considered there must be a foundation of factual knowledge and in the statistical field it must be organized into useful aggregates. Consequently if an attempt such as this does no more than focus attention on the need for this pre-requisite of economic planning, and hence stimulate demand for more accurate material, it will be justified.

(1) ROAD TRANSPORT: FREIGHT AND PASSENGER

(excluding Jamaica Utilities Ltd., and commercial transport by motor cars).

All vehicles of this type are classified officially as 'trucks'. There are two good reasons for not attempting any subdivision within the category, such as between passenger and freight. The first is that there is in actual practice no such distinction; more "passengers" are carried by freight vehicles than by passenger vehicles. The second is that we have no accurate knowledge of the number of vehicles operating in the two sections, as the nominal number of carriers' licences implies that about a third of the total must be operating illegally. Table 1 gives the position as revealed by official figures.

TABLE 1. NUMBER OF TRUCKS REGISTERED AND TYPES OF CARRIERS LICENCES IN FORCE, 1950-51

Type	Number
Stage carriages	350
Contract carriages	589
Public carriers	551
Private carriers	1,250
Total	2,740
Total number of trucks licensed	4,242

Sources: Island Traffic Authority and Collector-General's Reports.

Moreover, apart from Jamaica Utilities Ltd., there are very few specially built 'buses operating and the bulk of the passenger service is supplied by trucks either with locally built coach bodies or simply with the addition of bench seats to the normal truck body. In consequence, as an approximation there is not likely to be any significant difference between the operating expenses of passenger and freight vehicles even if there were 'pure' use.

TABLE 2. GROSS EXPENDITURE ON PASSENGER AND FREIGHT ROAD TRANSPORT, 1950-51

(Excluding Jamaica Utilities Ltd., and commercially operated motor cars)

Expenditure item	Original estimate	Final estimate	(£'000)	
			Likely Error	
(a) Fuel	980	920	+	70
(b) Oil	90	90	+	25
(c) Tyres and tubes	470	450	+	30
(d) Maintenance and repairs	1,250	1,210	+	120
(e) Wages	1,490	1,490	+	100 300
(f) Insurance of vehicles	150	130	+	20
(g) Overheads	1,080	1,080	+	300 100
(h) Depreciation on vehicles	720	660	+	50
(i) Interest on vehicles	*	80	+	30
(j) Vehicle licences etc.	*	40	+	5
Total:	*	6,160	+	750

All figures are rounded to the nearest £10,000.

In this and all subsequent tables discrepancies may occur because of rounding errors.

* denotes that no estimate was made from the source indicated.

The starting point of the 'original estimate' is a special enquiry that was made into operating expenditures by constituent items. The investigation was confined to two large commercial operators (one of which is largely concerned with passenger transport and the other with freight) and two large government operators (the Public Works Department and Kingston and St. Andrew Corporation). From the information so obtained average performances in all items were calculated on the basis of a sub-division of the category into vehicles of less than and greater than 50 cwts. unladen weight; totals were obtained as the product of the average expense and the number of vehicles operating. Although these data represent the experience of operators who between them run almost 10 per cent of the total number of trucks registered, it is evident that it is not anything approaching a random sample which yields results with assignable errors. In fact its use was chiefly to give a first approximation

which could be adjusted in the light of other knowledge. The procedure is fully described, item by item, below.

Annual mileage: The average annual mileage of the not exceeding 50 cwts. sub-division was taken as 15,000 miles and of the over 50 cwts. sub-division as 22,900. These estimates were derived from the special enquiry; such figures will be termed 'original estimates' throughout.

Number of vehicles: From the Collector General's report and from unpublished sources, the following breakdown is obtained:

		Number of vehicles
(i) Over 50 cwts:	Jamaica Utilities	68
	Petrol tankers	63
	Others	2,229
		Total
(ii) Under 50 cwts:		2,360
		Total
		1,882
Total		4,242

Calculations in Table 2 are based on 2,292 in (i) and 1,882 vehicles in (ii). The use of the full number of registration for this purpose may be questioned since it is known that a proportion of vehicles are operated for a part of the year only, but data on which the average performances are based already take account of this factor.

(a) **Fuel:** The original estimates assumed a petrol consumption of 18 miles per gallon for the light trucks and 11 miles per gallon for the heavy, which yielded totals of 1.57 and 4.77 million gallons respectively. Other users (see below) accounted for 5.77 million gallons, resulting in a grand total of 12.11 million gallons. The consumption recorded by the petroleum companies was 11.17 million gallons, of which they assumed only a minute proportion was used for purposes other than road transport. An allowance has to be made for the small number of diesel vehicles operating during the period (143) and this reduces the estimated actual consumption to 11.81 million gallons. (Apart from this no adjustments are made in respect of diesel vehicles as they would have only a negligible effect on the total). The final figures have been arrived at by adjusting the original estimates in the ratio 11.17: 11.81.

The price of petrol varied through the island and a weighted average price of £0.154 per gallon was used to arrive at the value of consumption. Accepting the petroleum companies' figures as firm, sources of error are confined to the breakdown and the monetary

evaluation. The evidence available suggests that the error allowances are reasonable.

(b) *Oil*: No independent checks were available and the relative error may be considerable but cannot be very large absolutely.

(c) *Tyres and tubes*: Allowing for the fact that some vehicles under 50 cwts. were delivery vans using car size tyres, the original estimates gave a combined total of 19,200 truck tyres after making an allowance for retreads. Returns from the tyre dealers showed a distribution of 18,600 new truck tyres. The agreement in the case of car size tyres (see below) was considerably less close and the figures were adjusted in the light of the car estimates. The average prices were taken as £22.15 per truck tyre and £6.78 per car tyre, the figures being derived from the tyre distributors' returns. These prices show a very reasonable relationship to the unit values of tyre imports. The final estimate is the tyre dealers' total for truck size tyres plus a proportion of the car size tyres derived from the original estimate. An allowance based on the import ratio was made for tube replacements. Taking the tyre distributors' returns as accurate, the greatest source of error is in the breakdown.

(d) *Maintenance and repairs*: This item is composed not only of garage repairs but all forms of maintenance including oiling, greasing and cleaning. In this case also, the independent check available was for the overall total of trucks and cars combined. The method was to work from the value of motor vehicle parts imported in the calendar year 1950. The Select Committee (4) accepted the average 'mark-up' on vehicle parts as 150 per cent and an examination of repair accounts suggested that 'labour' charges were about 155 per cent of replacements costs. 'Labour' and 'replacements' include all charges and are the conventional divisions in garage accounts. The total maintenance bill then appears as follows:

	(£'000)
Imports of vehicle parts including batteries: landed price plus duty	286
Retail value (150% added)	714
'Labour' charges (155% of parts retail value)	1,107
Total vehicle maintenance	1,821

This is to be compared with the original estimate for trucks and cars combined of £1.94 million. The original estimate includes the routine attentions noted above which the check estimate does not cover. On the other hand the vehicles of Jamaica Utilities Ltd. are included in the check estimate. On the whole, the agreement is thought to be

tolerably good. Both, however, are subject to an upward bias in so far as owners carry out their own repairs. Since this is believed to be the case to a significant extent for commercial operators only, it may be argued that they should be costed on the external repairs basis in any case. The question of whether this may involve any duplication under the 'overheads' item is discussed later. The final figure for total vehicle maintenance has been taken as the mean of the original and the check estimates; a proportionate adjustment was then made to the break-down over categories.

(e) *Wages*: The assessment of this item is considered to have doubtful reliability as there is no independent check and there is no guarantee that the original estimate was based on generally representative figures. For light trucks the standard wage of 81/- per week as paid by Government departments was used, one driver being allowed to each vehicle. In the case of heavy trucks the annual operatives' wage bill worked out at £475 per vehicle and this average usually included a reserve driver or driver's mate. The problem is rendered more difficult by the fact that much of the trucking business consists of small concerns in which there may be no clear division between wages and 'overheads'. However, the fact that small concerns contrive to exist suggests that they are economically viable and the single truck operator's wages and overheads can only be assumed to approximate to those of the larger units. A comparison with the cost situation of U. K. operators suggests that the wages item is too large whilst the overheads item is too small, but in total they appear reasonable. Consequently neither item is thought to be very reliable on its own but taken together they are thought to be sufficiently near the truth for present purposes. It is regrettable that information on such an important point is so meagre.

(f) *Insurance*: The original estimates were somewhat in excess of the motor insurance industry's accepted ideas. The final figures represent a compromise.

(g) *Overheads*: This is essentially a residual item representing the difference between all other items of expenditure and receipts, i.e. it includes all administrative expenses, sales costs, advertising, etc. and profit. Since total receipts were unknown it could only be estimated from operators' statements. Comparison with the cost structure of U. K. operators as given in the "Tables of Operating Costs" (3) suggests that the figure, although not entirely unreasonable, is downward biased. Under maintenance it has been mentioned that the effect of operators carrying out their own repairs was to exaggerate that figure but the difference between the actual cost and the full external charge would tend to find its way into overheads, either as unallocated administrative expenses or as profit. Since this tendency

has been ignored it may have resulted in some duplication over the two items but, in view of the modest size of overheads, the net effect is probably not large even though it cannot be assumed exactly self-cancelling.

(h) *Depreciation on vehicles*: This item is intended to represent the wastage of capital assets over the year's operations, i.e. the value of vehicle life consumed by providing the total output of service. The check estimate was derived from import statistics and vehicle licensing data. The following assumptions were made:

- (a) That the number of vehicles imported during any calendar year represented the number of new vehicles coming on to the roads, and hence into the vehicles licences figure, for the corresponding fiscal year.
- (b) That all vehicles have a life of exactly n years; this could mean either that all vehicles run the same annual mileage and have the same total mileage life or that the quotient of the two is always constant.

The second condition is admittedly a crude approximation to reality but as the object is merely to determine n as an overall average, it is thought to be sufficient for the purpose. The method followed was to establish a value of n which would give the 'best fit', on some criterion, of the observed data to a model based on the above assumptions.

If a_t is the number of trucks licensed in year t and b_t is the number of new trucks coming into service in the same year, then if a vehicle is completely worn out after n years we have

$$\sum_{r=t}^{r=t+n-1} b_r = a_{t+n-1}$$

As a criterion of the value of n giving the best fit to the observed data we may minimize the expression

$$E = \frac{1}{m-n+1} \sum_{t=1}^{t=m-n+1} \left| B_{t,n} - a_{t+n-1} \right|$$

$$\text{where } B_{t,n} = \sum_{r=t}^{t+n-1} b_r$$

and m is the number of terms in the original series.

This was done by trial, evaluating E from $n=2$ to $n=14$. The result is shown in Fig. 1, giving a definite minimum for $n=6$.

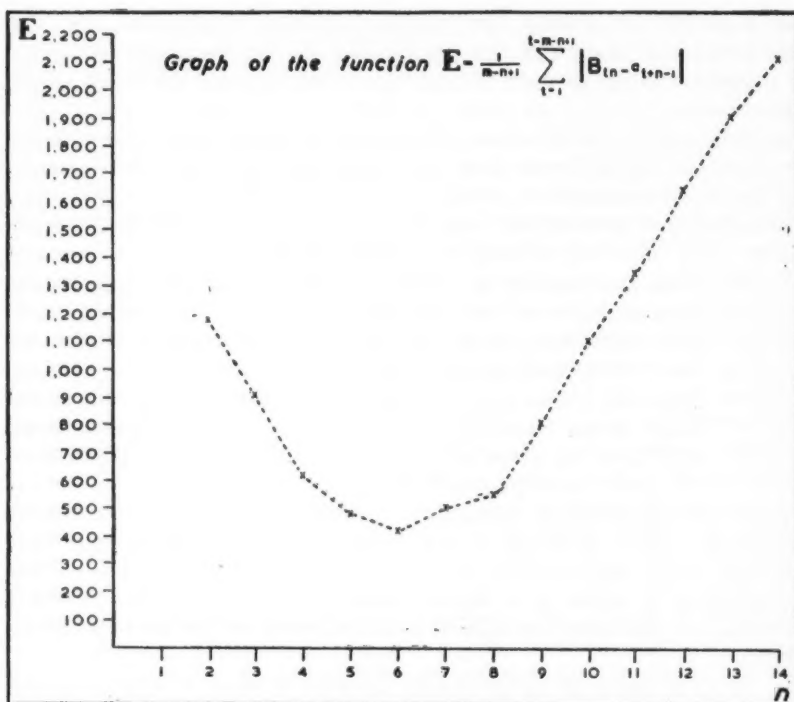


Fig. 1 Graph of the function E

The series used was from 1923 to 1939 as there is not yet a sufficiently long series available in the post-war period; the use of war time figures would, of course, distort the picture entirely. An objection to using pre-war experience for this purpose is that improved vehicle design may be resulting in longer life in which case the result is downward biased.

A desirable feature in the procedure is that the resulting estimate is not dependent on any assumptions made about the actual annual mileage but only that it remains roughly constant.

The check estimate was finally obtained by the inference that one-sixth of the total vehicle life had been expended on average in the year under review. This was evaluated monetarily by taking the import unit value per vehicle in 1950 (including duty) and adding 34 per cent, the average retail 'mark-up' as disclosed by the Select Committee Report (4). This procedure amounts to straight line depreciation and values depreciation at 1950 prices. It is not entirely equivalent to the basis of the original estimate (the operators' actual allowance) and the two agree more closely than might have been

anticipated. The check estimate has been preferred in that it would seem to have a more definite economic meaning.

(i) *Interest on vehicles*: This item has been taken as 4 per cent on the average depreciated value, calculated as above, assuming an equal distribution of vehicles of each age.

(j) *Vehicle licences, carriers' badges, etc.*: The Collector General's total receipts for motor vehicles has been divided between all categories on a proportionate basis, taking account of different rates of taxation. The usual practice is for drivers' licences to be the employees' responsibility and it is therefore assumed that it is absorbed into the wages item.

The gross expenditure calculated in Table 2 must include a certain amount of duplication, in as much as the supplies of the transport industry will themselves contain an element of transport costs. For example, the total expended on petrol will include the charges for internal petrol distribution and they are, therefore, included twice. It is not easy to determine the extent of such duplication but, apart from petrol distribution, the main items seem to be the transport of vehicle parts and tyres, and the transport content of road maintenance. Table 3 is an attempt to extract duplication from the total.

TABLE 3. GROSS EXPENDITURE ON PASSENGER AND FREIGHT ROAD TRANSPORT, FREE OF DUPLICATION, 1950-1951

	(£'000)
Transport expenditure on petrol distribution	90
Transport expenditure on road maintenance	30
Transport expenditure on vehicle parts and tyre distribution	20
Total duplication	140
Gross expenditure from Table 2	6,160
Gross expenditure free of duplication	6,010

The first step in assessing duplication was to take the total over all categories. Petrol transport has been taken as approximately 3 per cent of the total expenditure for vehicles over 50 cwt., i.e. the percentage of petrol tankers to the total which also agrees with the known proportions of petrol consumed by them (0.14 million gallons). Road maintenance is a proportionate allocation of the total Public Works Department's expenditure on transport between road maintenance and other functions. In the case of vehicle parts and tyres it has been assumed that a transport charge is involved only for outside Kingston and suburbs; the total for the two items has been divided in ratio to the number of vehicles registered in the Corporate Area

and in the rest of the island and the transport charge on the latter has been assessed at 5 per cent.

There is a somewhat tricky aspect to the question as there are two kinds of duplication involved—within categories and between categories. It is thought preferable to follow the principle of allocating expenditure to its most basic pigeon-hole; consequently Table 3 represents duplication within the category only and a further adjustment is made to the sole other category where it is significant, motor car transport. The final step, therefore, was to distribute the totals calculated as described above, between categories (1) and (3). In the case of Public Works' expenditure this involves the liberal use of crude assumptions.

(2) KINGSTON PUBLIC PASSENGER TRANSPORT.

(Jamaica Utilities Ltd.)

Little difficulty is involved with this category as the exact data are obtainable from the balance sheets of Jamaica Utilities Ltd. and the necessary items are readily available.

TABLE 4. GROSS EXPENDITURE ON KINGSTON PUBLIC PASSENGER TRANSPORT 1950-51

	(£'000)
Total costs to company	372
Petrol duty refund	55
Total consumer expenditure (i.e. company's receipts, excluding subsidy)	317

The figures for the financial year 1950-51 have been interpolated from the calendar years 1950 and 1951.

(3) MOTOR CARS

(including all private motoring, taxis, hire-cars, Government and other commercially used cars)

No breakdown is shown within this category although the original estimates were in fact made on a classification based on horse-power, eight classes being distinguished. The division that it would have been desirable to employ is some distinction between private motoring and other purposes but no sufficiently accurate data were available to permit this distinction. Absorbed into the aggregate it is believed that no serious distortion is caused as private cars represent 95 per cent of the total although this will include some cars owned by businesses. In terms of annual mileage private motoring is probably less important than this figure suggests but even assuming the average taxi or hire-car use is double the average private car use, it would

still be over 90 per cent of the total volume of motoring. A final adjustment is made to allow something for wages and overheads in commercial use.

TABLE 5. GROSS EXPENDITURE ON MOTOR CARS

(including commercially used cars) 1950-51

(£'000)

Expenditure Item	Original estimate	Civil Service estimate	Final estimate Amount	Likely error
(a) Petrol	750	770	710	+ 70
(b) Oil	40	40	40	+ 15
(c) Tyres and tubes	160	280	130	+ 30
(d) Maintenance	600	630	580	+ 60
(e) Wages	*	*	190	+ 60
(f) Insurance	210	260	210	+ 30
(g) Overheads	*	*	60	+ 10
(h) Depreciation	*	780	720	+ 60
(i) Interest	*	*	140	+ 50
(j) Licences, etc.	*	*	90	+ 5
(k) Garage rent	*	*	80	+ 20
Total:	*	*	2,940	+ 410
Less duplication: petrol distribution			60	
road maintenance			10	
distribution of parts and tyres			10	
Total: free of duplication			2,850	+ 410

* denotes that no estimate was made from the source indicated.

The term 'original estimate' follows the convention adopted previously and refers to data on car performance and usage obtained by special enquiries. This investigation consisted in circulating a questionnaire to motor car owners who were chosen simply on a basis of convenience; in fact they were mostly colleagues at the University College of the West Indies. In all 62 forms were completed and returned. The questionnaire related approximately to the year 1952-53 and price corrections were applied to items involving monetary assessments; physical data, e.g. petrol consumption, tyre life, etc., were assumed to be constant over time. As in the case of truck operators, the results cannot be regarded as coming from anything like a random

sample and they have been used merely to give a first approximation for comparison with other data.

The column 'Civil Service' estimate refers to calculations which were made on the basis of data collected for the report on car allowances to be paid to civil servants. Their use for the present purposes was, of course, in no way envisaged in the compilation of the data, and discrepancies between items calculated from them and the final estimates cannot be taken as having any bearing on the report's specific intention. The data were originally based on 1949 but overall estimates of price increases between 1949 and 1950 were also included. The calculations shown have been corrected for price change according to this information.

Less detail is given in the notes that follow than in the case of trucks as the general method is similar and many particular points have been dealt with already. Both sets of preliminary calculations were based on an assumed annual average mileage of 9,500 for the 12,336 cars licensed in the period. In this case, however, it seemed that account should be taken of cars not being in use the whole year and a reduction factor of 15 per cent was employed. This percentage is the overall deficiency of licence duty collections over the theoretical amount due for all vehicles.

(a) *Petrol*: The final estimate represents the allocation among different categories of total consumption (petroleum company's figure) as explained in the notes to Table 2.

(b) *Oil*: No independent check is available but it is safe to assume that the actual error is within that shown.

(c) *Tyres and tubes*: The original estimate were based on a new tyre life of 15,125 miles; allowance was made from the tyre agents' returns for remoulded tyres which were taken to have a life of 9,225 miles. In accordance with trade opinion, new cars imported in 1949-50 and 1950-51 were assumed to require no tyre replacements. The number of new car tyres came to 19,100 to which has to be added the estimated 4,500 used on light trucks and vans, giving a total of 23,600. Compared with 18,700 obtained from the dealers' returns, this difference is sizeable and is attributed mainly to two factors: first, the post-Korean price rise in rubber took effect in the second half of 1950-51 and this probably led to some postponement of replacement, more particularly among private motorists: second, the smooth replacement rate assumed in the original estimate may not necessarily apply, and a large influx of new cars at the same period, such as occurred in the immediate post-war years, could generate a cyclical effect.

The final figure is obtained by the method explained in the notes to Table 2. An allowance of 6 per cent for tubes is included,

this being the value of motor car tube imports as a percentage of tyre imports.

(d) *Maintenance*: The method of arriving at the final estimate has been explained in Table 2.

(e) *Wages*: One driver has been allowed to each of the 564 taxis and hire cars at a wage of 81/- per week. Little evidence is available on the extent to which private motorists employ chauffeurs; from the 1943 census of Jamaica, it can be inferred that the number was then 10 per cent of all private car owners. It is thought the proportion has fallen since 1943 and it is assumed that 5 per cent would be a reasonable figure for 1950-51, at a weekly wage of 45/-.

(f) *Insurance*: The final figure is an adjustment made on the basis of the motor insurance industry's views.

(g) *Overheads*: Overheads for taxis and hire cars were assessed from United Kingdom experience given by the "Tables of Operating Costs" (3), so that they bear the same ratio to total costs in both cases.

(h) *Depreciation*: This item was estimated solely by the method outlined in the notes to Table 2. The minimization of the function given there resulted in a value of $n=10$ and, as car life is normally taken to be 80,000 to 100,000 miles, it fits very well to the average annual mileage obtained from the special enquiry.

(i) *Interest*: It is a debatable point whether interest should be taken into account for private motoring; from a strict angle, ownership of a car is clearly a preferred alternative to investing the resources involved in stocks or shares, say, and as such it is yielding a service whose value is at least the equivalent of the returns so obtainable. The difficulty is that unless similar allowances are made all along the line, for example, in national income estimates, comparisons may become misleading. However, although no statistics are available there is little doubt that a large proportion of cars are bought on the hire-purchase system in Jamaica and consequently substantial interest payments actually take place. An interest item has been included, calculated as described in the case of trucks, and it can be deducted from the total if so desired for any purpose.

(j) *Licences, etc.*: Treatment of this item has been explained in the notes to Table 2.

(k) *Garage rent*: Standard national income practice is to impute a value to owner-occupied property and hence it does not involve the same doubt as in the case of interest. The amount allowed was 2/6 per week which is thought to be an approximate market value on the average.

As in the case of trucks, it is fairly clear that Table 5 must include a certain amount of duplication; for example, the expenses of

petroleum company and Public Works Department officials travelling on duty will enter into account twice. It is not possible to make any allowance for such duplication within the category (which, in any case, is not likely to be serious) but expenses already included in the trucks category are deducted in the final line.

(4) MOTOR CYCLES

Travelling by motor cycle is a very small part of transport expenditure in Jamaica; it would not appear to merit more than cursory treatment since a large relative error can be tolerated in the category without causing any significant effect on the aggregate and it is of comparatively little interest in itself.

Table 6 has been calculated from the report on civil servants' travelling allowances apart from a few exceptions described in the notes.

TABLE 6. GROSS EXPENDITURE ON MOTOR CYCLES, 1950-51

£ '000	
Expenditure item	Amount
(a) Petrol	17
(b) Oil	3
(c) Tyres and tubes	2
(d) Maintenance	10
(e) Insurance	4
(f) Depreciation	15
(g) Interest	2
(h) Licences	1
Total:	54 + 10

The average annual mileage of the 665 motor cycles licensed in 1950-51 was taken on 10,000 miles, i.e., approximately the same as the car mileage.

(a) *Petrol*: A final adjustment was made to this item as explained in the notes to Table 2.

(b) *Oil*: No adjustment was made.

(c) *Tyres and tubes*: This item was taken from the tyre distributors' returns.

(d) *Maintenance*: A check was made against the import of motor cycle parts and the 'Civil Service' estimate adjusted.

(e) *Insurance*: No adjustment was made.

(f) *Depreciation*: Motor cycle life was taken as 80,000 miles or 8 years on average and the 'Civil Service' estimate adjusted.

(g) *Interest*: This item was calculated at 4 per cent on the depreciated value.

(h) *Licences*: See notes to Table 2.

(5) BICYCLES

The main difficulty in this category was that the number of bicycles licensed in 1950-51 was almost certainly less than the true number in use. Such other information as is available would not be inconsistent with a figure 50 per cent higher than the 57,000 bicycles licensed. The estimates in Table 7 are based on calculations independent of this factor but the difficulty still remains in that it is impossible to judge whether the amounts imputed stand in a reasonable relationship with the number of bicycles in use.

TABLE 7. GROSS EXPENDITURE ON BICYCLE TRAVEL, 1950-51.

£'000	
Expenditure item.	Amount
(a) Tyres and tubes	40
(b) Maintenance	60
(c) Licences	20
(d) Depreciation	140
Total:	260 + 50

(a) *Tyres and tubes*: The total value of imports (including duty) was increased by a retail 'mark-up' of 50 per cent, a figure regarded as reasonable by the trade. The imports for 1950 were used, making a lag allowance of 3 months, but no account could be taken of stock charges.

(b) *Maintenance*: This estimate is based on the value of imports of bicycle parts, treated as in the case of the previous item; the retail 'mark-up' was thought to be rather higher at 75 per cent of the landed cost including duty. No allowance was made for labour as it was assumed that bicycle owners would carry out their own repairs.

(c) *Licences*: Given by the Collector General's Report.

(d) *Depreciation*: The method used for trucks and cars cannot be employed for bicycles due to the inadequacy of the registration data. In fact, application of the method gave a result of $n=5$ and it is so contrary to common experience to accept an average bicycle life of 5 years that it is one of the reasons for doubting the accuracy of the registration data.

In these circumstances, the value of imports, with a 75 per cent retail 'mark-up', has been taken as an approximate guide to depreciation. This almost certainly sets an upper limit since both bicycle imports and the number in use appear to have increased steadily since the war.

(6) JAMAICA GOVERNMENT RAILWAY

Data on railway operations are readily available and Table 8 presents no difficulty apart from the question of duplication.

The Annual Report of the Jamaica Government Railway does not give sufficient detail for the exact amount of duplication involved to be indicated; however, it is possible to establish certain limits. General merchandise and miscellaneous articles constituted 42 per cent of all freight receipts in 1950-51 and it is unlikely that more than 10 per cent of this consisted of transport equipment. Consequently up to 5 per cent of the freight receipts, i.e., £10,000, may represent duplication of items under other categories; no adjustment is made to Table 8 as the figure is dubious but this amount is allowed as error.

TABLE 8. GROSS EXPENDITURE ON PASSENGER AND FREIGHT RAILWAY TRANSPORT, 1950-51

	(£'000)
Total costs to Railway Department	732
Subsidy (deficit including all debt charges)	405
Receipts, i.e. consumer expenditure	327 + 0 — 10

AGGREGATED TRANSPORT EXPENDITURE.

Information from the constituent category tables is assembled into a total island expenditure figure in Table 9 and this is done on the two alternative definitions of market prices and factor cost.

The assessment of error in Table 9 presents something of a difficulty. In the first place it is clear that the simple aggregation of likely errors in the constituents, as done in the individual tables, would yield a figure of an improbable size since it can be taken that not all the errors are in the same direction. Secondly, it has been emphasized that there is no clear definition of 'likely error'; such figures are personal evaluations of the reliability of the estimates with the intention that the probabilities of the intervals including the correct figure should be roughly equal and of a high order. Thus nothing is assumed about an error distribution and consequently there is no basis for computing the distribution of a sum of errors. Finally, it has been pointed out from time to time that certain totals, e.g., petroleum and tyres, are much more certain than the break-down over categories. By force of circumstances, the total error shown in Table 9 takes account of the latter factor only and is probably rather generous.

TABLE 9. GROSS EXPENDITURE ON ISLAND TRANSPORT 1950-51

Category	£ ('000)				
	Gross expenditure at market prices	Indirect Taxation	Govt. Services (road)	Subsidy	Gross expenditure at factor cost
	(1)	(2)	(3)	(4)	(1)-(2)+(3)+(4)
(a) Road freight & passenger	6,010	610	480	—	5,890
(b) Jamaica Utilities Ltd.	320	60	30	50	340
(c) Motor Cars	2,850	530	230	—	2,560
(d) Motor Cycles	50	10	—	—	50
(e) Bicycles	260	40	20	—	250
(f) Railway	330	—	—	410	730
Total	9,830 + 900	1,250	770	460	9,810 + 900

All figures are rounded to the nearest £10,000.

The symbol — means nil or less than half the final significant unit shown.

Table 9 is intended to be free of duplication in and between categories and it is believed to be so within the limits of likely error shown. Expenditure at factor cost is derived in the usual manner by deducting indirect taxation on operating cost and adding any subsidy. A final adjustment is made to the total by adding in Government expenditure on transport services. It should be observed that net new investment is excluded in Table 9.

This table is not, however, the final word in the exercise; it gives the appropriate indication of the importance of transport in terms of aggregate magnitudes but it is possible to rearrange the data in other, and more instructive ways. In Table 10 the transport industry is analysed by an 'input-output' matrix from which certain effects of changes in the existing industry pattern can be estimated.

Purchases from Abroad (road): (a) to (d). This covers only the import value of the various items but the figures do not, of course, agree with the trade returns since it is the actual consumption during the period which is shown. The items have been priced by using import unit values for 1950 thus allowing a lag of three months. Vehicle replacement represents the import demand derived from depreciation and is not the actual value of replaced vehicles; other items are self-explanatory.

Internal Purchases: (e) to (j): This group of items includes all direct demands on the home market but to some extent will also involve a certain amount of indirect import demand. Vehicle maintenance is total expenditure as previously recorded, less the import cost of parts, and net of duty. Garage and other local services covers the retailing costs (free of duplication) of fuel, lubricants, tyres (including retreading), tubes and vehicle replacement together with repairs. The non-railway parts of the item road maintenance and other services corresponds to the entry 'Government services' in Table 9 when duplication is deducted and re-allocated to its most basic point of input; in principle it is impossible to allocate between the various categories with any real significance, but for the sake of completeness in this presentation an arbitrary imputation has been made in proportion to output totals. It has the purpose of making clear that, for instance, a substantial increase in road freight and passenger transport would necessitate an increased expenditure on this item, even though the amount of the increase cannot be determined with any precision.

The bulk of insurance is transacted through British offices; consequently profits and certain other elements would represent payments abroad. However, the stated experience of the insurance offices was that claims were equal to premiums, in which case overseas payments as a part of this item were probably negligible.

EXPENDITURE ON INTERNAL TRANSPORT

59

TABLE 10. INPUT AND OUTPUT OF TRANSPORT INDUSTRY AT FACTOR COST, 1950-51
(£'000)

Input	Output	(1) Road freight and public passenger	(2) Jamaica Utilities Ltd.	(3) Motor cars	(4) Motor cycles	(5) Bicycles	(6) Rail- way	Total Input
(a) Fuel and lubricants	330	40	240	10	—	—	80	690
(b) Tyres	260	10	70	—	30	—	—	360
(c) Parts	150	10	70	—	30	—	40	300
(d) Vehicle replacement	430	30	450	10	70	—	40	1,020
Sub-Totals	1,160	90	820	20	120	—	160	2,370
(e) Vehicle maintenance	1,010	70	490	10	30	—	70	1,670
(f) Garage and other local services	490	50	350	10	70	—	—	980
(g) Operatives' wages	1,490	70	190	—	—	—	60	1,810
(h) Interest on vehicles	80	—	140	—	—	—	30	250
(i) Road maintenance and other services	450	30	210	—	20	—	190	910
(j) Insurance on vehicles	130	10	210	—	—	—	—	350
(k) Overheads	1,080	20	140	—	—	—	230	1,470
Sub-Totals	4,730	250	1,730	30	120	—	570	7,440
Total Output	5,890	340	2,560	50	250	—	730	9,810

The symbol — means nil or less than half the final significant unit shown.

Railway: The adjustment of the railway expenditure to the pattern of this table was somewhat Procrustean. The breakdown was made from a detailed statement of accounts (unpublished) supplied by the Jamaica Government Railway. In particular, it should be noted that 'operators' wages' includes the labour costs of those engaged on 'running' operations in the narrowest sense, in order to adhere to the definition used in the road transport categories. In consequence, 'overheads' includes a much larger proportion of other labour costs than in the case of road transport.

A few brief examples of the use of Table 10 may be given. On the assumption of proportionality, the 'production function' of the road freight and passenger category yields the following fixed technical coefficients:

Fuel and lubricants	.056
Tyres and tubes	.044
Parts	.026
Vehicle replacement	.072
Vehicle maintenance	.172
Garage and other local services	.082
Operatives' wages	.252
Overheads	.184
Interest on vehicles	.013
Road maintenance and other (Government) services	.077
Insurance	.022

Various committees have advanced arguments for and against the curtailment of railway transport; even though the results must necessarily be crude for a variety of reasons, it may be instructive to consider the effects of the transfer of, say £300,000 worth of output at factor cost from the railway category to the road freight and passenger category, as revealed by this type of analysis. The application of the technical coefficients to the increase in the output of the latter category, induces the following overall per cent changes to inputs:

<u>Input</u>	<u>Percentage change</u>
Purchases from abroad	-0.2%
Operatives' wages	+2.8%
Vehicle maintenance, garage and other local services	+1.9%
All other	-3.1%

It must be emphasized that the effects indicated by the analysis are not the only relevant ones and moreover they are based on a very broad assumption. Some of the sources of possible error are not as

important as they may appear at first sight, however. The assumption of proportionality in the 'production function' may not be a serious limitation; in the example an increase of well under 10 per cent is involved and over such a comparatively short range it is a reasonable approximation.

Again the margin of error in the basic figures in Table 10 does not swamp the effects when expressed in percentage form. Suppose for instance, that the operatives' wages figure for category (1) is in error by +20 per cent, then the technical coefficient will be in error by roughly +15 per cent but the ratio of new to old input over all categories would be in error by only +1 per cent. It would mean that the percentage change shown above would be wrong by one point. This progressive reduction in the error margin for derived statistics is due to the fact that errors will always be present in the same direction; hence the somewhat curious result that the edifice is more stable than its foundations.

The more serious limitations to the use of Table 10 spring from two sources; first, that there is no distinction between passenger and freight, and second, the assumption that a reduction of railway output by £300,000 at factor cost would result in an increase in road transport by the same amount. Neither of these points can be adequately discussed for the lack of sufficiently detailed information.

A second example of the use of Table 10 is in assessing the incidence of existing taxation and future tax proposals. Any tax on petrol is distributed in the following manner:

<u>Category</u>	<u>Percentage</u>
Road freight and passenger transport	52
Jamaica Utilities Ltd.	7
Motor cars	40
Motor cycles	1

Consequently at least 50 per cent will bear on final consumption and something under 50 per cent on production. The motor spirit tax in force in 1950-51 was 1/4d. per gallon and, at market prices, this formed 7 per cent of the total output of category (1). The transport content of general production cannot be more than 25 per cent at most on average and consequently the petrol tax represented less than 1.8 per cent of the price of goods on average. The effects of tax changes can be examined in a similar manner.

Finally, in Table 11, the aggregates are assembled in comparison with national income and an attempt is made to separate the net output of categories (1), (2) and (6).

TABLE 11. TRANSPORT AND NATIONAL INCOME, 1950-51

Category	Gross Output	Net Output	(£'000) (At factor cost)	
			Per cent of net national output (1950)	
			Gross output	Net output
(1) Road freight and passenger transport	5,890	3,160	6.9	3.7
(2) Jamaica Utilities Ltd.	340	120	0.4	0.1
(3) Motor cars	2,560	—	3.0	—
(4) Motor cycles	50	—	0.1	—
(5) Bicycles	250	—	0.3	—
(6) Railway	730	330	0.9	0.4
Total	9,810	—	11.5	—

Net Output: This is the sum of operatives' wages, overheads and depreciation. The inclusion of the whole of overheads is questionable in that part of this item certainly consists of payments to other firms for various services; on the other hand, some transport undertakings carry out their own repairs and all will do some maintenance if only cleaning.

Net National Output: The figures from the International Bank for Reconstruction and Development Report (5) of £85,000,000 for 1950 has been used. As no breakdown is available it is unfortunately not possible to make any detailed comparison.

It may be observed that Table 11 underestimates the importance of transport in the island economy in one respect because the category gross outputs exclude net new investment which is included in the net national output. In fact, as far as this factor can be estimated it does not appear that there was any considerable excess of gross investment over depreciation but this may be due to an irregular vehicle replacement flow which could well have occurred after the post-war build up. The adjustment is unlikely to be considerable even if those factors could be sorted out. There are points of non-comparability which have been mentioned previously, but the figure of 11.5 per cent from Table 11 may be compared, roughly, with the corresponding figure for Great Britain in 1950, estimated by Ernest Rudd (8) of 11 per cent. Taking account of the assumed error limits, the data presented in this paper do not reveal any difference in the proportion of total resources devoted to transport in the two cases.

ACKNOWLEDGEMENTS

Government Departments, business firms and private individuals in Jamaica have all co-operated very helpfully in providing additional information without which this study could never have been com-

pleted. The Collector General's Office, the Public Works Department, the Central Bureau of Statistics, the Jamaica Government Railway, the Colonial Secretariat and the Island Traffic Authority have all in varying degrees been to considerable trouble to prepare special data for use in this paper. Among private bodies, the petroleum companies, the main tyre distributors, the insurance industry, two large transport firms and several Kingston garages are entitled to an expression of appreciation for their help in providing information requested.

Thanks are due to Prof. R. G. D. Allen, O.B.E. (University of London), Mr. K. F. Glover (Ministry of Transport), Mr. Ernest Rudd (Department of Scientific and Industrial Research, Road Research Laboratory) and Mr. C. J. Thomas (University of Southampton) for sparing time to read the first draft of this paper and making very helpful criticisms.

Needless to say, the use made of the assistance acknowledged above is entirely the author's responsibility.

REFERENCES

1. Central Bureau of Statistics, *"External Trade of Jamaica, 1950"*. Government Printer, Kingston.
2. Collector General, *Annual Report for the year ending March 31, 1951*. Government Printer, Kingston.
3. *Commercial Motor* (1952-53), "Tables of Operating Costs for all Types of Commercial Vehicles", 40th ed. Temple Press Ltd., London.
4. House of Representatives, (1953), *Report of the Select Committee to enquire into the margins of profit on motor cars and motor car parts*. Government Printer, Kingston.
5. International Bank for Reconstruction and Development (1952) *Economic Development of Jamaica*. John Hopkins Press, Baltimore.
6. Island Traffic Authority, *Report for period April 1, 1950 to March 31, 1951*. Government Printer, Kingston.
7. Jamaica Government Railway, *Annual Report for year ending March 31, 1951* (Unpublished).
8. RUDD, Ernest (1952) "Estimates of Expenditure on Road Transport in Great Britain". *Journal of the Royal Statistical Society, Series A (General)*. Vol. CXV Part II, London.

THE JAMAICA CONSTITUTION OF 1884

By

RONALD V. SIRES

From the seventeenth century to 1866 Jamaica was governed under the old colonial system, consisting of a Governor, an elective assembly and an appointive council. The constitution provided only a moderately efficient means whereby the interests of planters and merchants might be harmonized with imperial requirements. During the first half of the nineteenth century the system worked with less and less efficiency as the policies of the Imperial Government came to be increasingly distasteful to the planters of Jamaica. When Great Britain and Jamaica clashed in the enforcement of the apprenticeship system after 1834, a legislative strike of the House of Assembly presented an opportunity to abolish the existing constitution; but the opportunity was not grasped and the system was continued in operation in its essential features.^a The adoption of free trade in sugar in 1846 resulted in two "retrenchment crises" involving the refusal of the Assembly to pass part or all of the annual revenue bills. A compromise was brought about in 1854 by which the Imperial Government made a guaranteed loan to the Government of Jamaica and a modified form of representative government was set up. An executive committee was created to frame the annual estimates and improve the relations between the Governor and the Assembly, and individual members of the Assembly lost the right to propose expenditures of money. The cabinet system was not introduced and executive government was to be conducted on the final responsibility of the Governor, who, in turn, was responsible to the Crown.^b

The years from 1860 to 1865 were generally unhappy ones in the history of Jamaica. In the autumn of 1860 Governor Charles Henry Darling made an attempt to graft the system of responsible government on the new constitution, thus providing an excuse for the kind of political argument and bickering which had characterized so much

^a W. J. Gardner, *A History of Jamaica* (London, 1909), pp. 394-403; Sir Henry Taylor, *The Autobiography of Henry Taylor* (2 vols., New York, 1885), pp. 206-17; Ronald V. Sires, "Constitutional Change in Jamaica, 1834-1860", *Journal of Comparative Legislation and International Law*, 3d ser., XXII (Dec. 1940), pp. 178-90.

^b 17-18 Vict. c. 54; 17 Vict. c. 29 (Jamaica). Governor Sir Henry Barkly's analysis of the operation of the new system may be found in a confidential despatch to the Colonial Office, April 9, 1856, C.O. 137:331.

of the proceedings of the Jamaica Assembly in the past. The impact of the American civil war was felt in higher prices for necessary imports, and the condition of the Negro was reflected in a considerable increase in non-violent crimes and in the population of jails and prisons.^a A general restlessness was shown in the unhappy relations between the House of Assembly and Lieutenant-Governor Eyre, who had succeeded Darling in 1862. Eyre was charged with responsibility for improper handling of the affairs of a tramway that was to run from Spanish Town to Porus, and the Assembly insisted that it had the right to force government employees to testify as to their administrative acts, but lost its case in court. The Assembly, led by a determined group of opponents of Eyre, carried out another legislative strike, but Eyre was upheld by the Colonial Office and received a regular appointment as Governor. So serious and humiliating were these quarrels that suggestions were made from time to time that the House of Assembly should be abolished and a new constitution be devised.^b Eyre more than once broached the subject, but the Colonial Office was unwilling to take steps toward abolition unless there were a strong party in the Assembly in favour of it. If, however, the Assembly were to decide that its own existence should come to an end the Imperial Government would carefully consider any proposals that might be made.^c

The insurrection in St. Thomas-in-the-East in October, 1865, provided the necessary excuse for Governor Eyre to propose openly the abolition of the existing constitution of Jamaica — the legislature should immolate itself on the altar of patriotism. A suggestion which a year before would have brought anathemas down upon his head was now solemnly accepted by a majority of the Assembly, the greater number of whose members had come to believe that a stronger government was needed to keep Jamaica from becoming another Haiti ruled by Negroes who would expel the whites and destroy their property. A bill was passed in Assembly and Council to set up a uni-

^a For Darling's attempt to introduce responsible government in Jamaica, see *Parliamentary Debates of Jamaica*, V (Sept.-Nov., 1860); House of Lords, *Sessional Papers*, 1864, no. 254, pp. 4-32. For information as to increases in crime and pauperism, see: *Journals of the Legislative Council* (Jamaica), 1864-65, p. 60; *Votes of the Assembly of Jamaica*, 1863-64, sess. 2, Appendix XIII, p. 14; Eyre to Cardwell, no. 69, March 30, 1865, C.O. 137:388.

^b House of Lords, *Sess. Pap.*, 1864, no. 254, and 1865, no. 257, *passim*; for the desire to abolish the House of Assembly, see: Judge Cargill to H. W. Austin, April 15, 1865, enclosure in Eyre to Cardwell, no. 90, April 19, 1865, C.O. 137:390; clipping from *Falmouth Post*, enclosure in Eyre to Newcastle, no. 61, Feb. 20, 1864, C.O. 137:379.

^c Henry Taylor to Cardwell, July 29, 1865, C.O. 7:143; C. S. S. Higham, "Sir Henry Taylor and the Establishment of Crown Colony Government in the West Indies", *Scottish Historical Review*, XXIII (Jan. 1926), pp. 92-96.

cameral legislature composed of both appointed and elective members, to which Her Majesty might appoint a qualified administrator to work with the Governor and perform some of the functions of the former executive committee.^a But Governor Eyre received a confidential letter from the Colonial Office which suggested that the Jamaican legislature pass a simple act for its own abolition, placing in the hands of the Imperial Government the task of deciding what the new system of government should be.^b The suggestion was accepted and a new act was passed in this sense. On the basis of a confirming act of the Imperial Parliament in 1866, an Order in Council was issued to create a Legislative Council composed of *ex-officio* and unofficial members, with no elective element whatsoever. The new system was quickly put into operation and there was a general though not unanimous expectation that a brighter day would soon dawn in the island.^c

It was hoped that under crown colony government there would be none of the tiresome bickering that had been a standard feature of the political life of Jamaica in the past. Paternal government would protect whites and browns, planters, merchants and men of property against possible Negro uprisings in the future. Government would be more efficient and honest and the needed introduction of new capital would be encouraged. Jamaicans had proved themselves unable to operate free institutions and must now throw themselves unreservedly into the arms of the Imperial Government for their own good. A future return to representative government and an enlargement of the franchise would greatly increase the power of the Negroes and inevitably result in demagoguery and political corruption. From the point of view of the Imperial Government and of the friends of the Negro in both Jamaica and England, the shift to crown colony government would make it possible to protect the interests of the Negro more effectively than in the past—in fact, to balance the interests of all classes and groups in the island in a more objective manner than had formerly been done.^d

The new system of government was fashioned for efficiency and speedy action and was not in an immediate sense dependent on the state of public opinion for its decisions. The central figure was the Governor, fully briefed by the Colonial Office and armed with suffi-

^a The act may be found in *Parl. Pap.*, 1866, c. 3594, pp. 200-06.

^b Higham, *loc. cit.*, p. 93; Eyre to Cardwell, Dec. 8, 1865, *Parl. Pap.*, 1866, c. 3594, p.p. 234-35.

^c The Order in Council is dated June 11, 1866 and may be found in *Minutes of the Privy Council, Jamaica*, 1860-1870. The new Legislative Council held its first meeting on Oct. 16, 1866.

^d *Parl. Deb. Jam.*, Nov. and Dec., 1865, *passim*.

cient power to push through any reasonable legislative programme. He could command the votes of the *ex-officio* members of the Legislative Council or use his casting vote in the unlikely case of a tie. Legislation was framed under his direction; he presided at the meetings of the Council and could thus direct legislative proceedings to the desired end. The fact that the full complement of unofficial members was not at first appointed made it much easier for the Governor to have his way. The system called for a Governor of ability and tact who could sense what kinds of legislation might create excessive opposition among influential elements in Jamaica.^a

Sir John P. Grant, a very capable Indian administrator, took up his duties in Jamaica in August, 1866. During his term of office an extensive legislative programme was put into effect. A system of grants-in-aid to schools was instituted; the judicial system was re-fashioned; improvements were made in the police system and a rural constabulary was organized; hospitals were improved and a government medical system begun; a government savings bank was founded and in 1870 the Church of England was disestablished. A beginning was made with a project for using the waters of the Rio Cobre for irrigation purposes.^b

All of these changes were adopted with considerable rapidity and it seemed to some that the pace was too rapid. If Jamaica wanted strong government, she was getting it. Public improvements and increased efficiency in government required increased expenditures and taxation in an island that had seen more than one serious crisis over "retrenchment" in the past. The ruling classes that had given up their power in panic in 1865 did not really believe in using the taxing power of the state for projects that would in the long run increase the productivity of agriculture, while the new government, directed by governors with Indian experience, believed in the validity of such action. The attitude of the old ruling class led toward retrenchment in government costs, while the policies of the new government meant increased costs.^c How much time would elapse before serious criticism would arise or demands be made for a full or partial return to the elective principle in government?

It may be expected that the politically conscious elements in the island, especially those that had helped to bring about the change in constitution in 1865-66, would adopt a waiting attitude toward

^a Order in Council creating Jamaican constitution, as in n. 8; *Draft of Instructions to Sir William Grey* (March 10, 1874); *Instructions to our Captain-General and Governor-in-Chief in and over Our Island of Jamaica and its Dependencies . . .* (June 4, 1877).

^b Gardner, *op. cit.*, pp. 494-508.

^c Sydney Olivier, "The development of Jamaica", *Daily Gleaner* (Kingston), Oct. 5, 1931.

the new system. Their judgment would be conditioned by attitudes that were to a considerable extent mutually incompatible. They wanted a strong government if it would prevent dangerous outbreaks of the Negro in the future, but not one which would lay increased tax burdens on agriculture and commerce. They wanted a government free from influence and corruption yet disliked one that made its decisions without consulting them in one way or another. Their desire for stability in government and administration was gradually balanced by dislike of a system that denied to them the political power which they once possessed. We may expect that as the fear of Negro uprisings faded away the desire for a voice in government would slowly return. If the Governor and his advisers made no mistakes that might be publicly dramatized, pure crown colony government might last for a long time; if it did something that roused general dislike, dissatisfaction would come to a head and the Imperial Government would be faced with demands for a total or partial return to a system of representation. The history of crown colony government in Jamaica shows a gradual loss of support from the elements that were friendly to it at the start.

After a brief period of opposition to the adoption of crown colony government in any case, the *Colonial Standard*, which claimed to represent the interests of the planters, adopted a waiting attitude as the policies of the new government developed. "We expect great things from the new Government", wrote the editor before the system was in operation, "but we ought, in good time, to commence pointing out to them some of the things most necessary to be attended to at once." Looking at the bright side of things was the best preparation for co-operation with the new government. By the beginning of the year 1867 the editor was taking the attitude that only a "purely conventional homage" could be given to the government and it was his task to criticize policies as they unfolded. From this moderate stand the *Colonial Standard* went on until it became a most virulent opponent not only of the policies of Sir John P. Grant but of crown colony government itself.^a The *Morning Journal*, representing the views of the coloured population, began with a strong support of the new system, then entered a period of ambivalence, and finally ended up in an attitude of disillusionment and general opposition.^b Expressions of discontent in editorials and in "letters to the editor" are not to be taken as statements of fact but as convictions that grew in the minds of the editors and of the people whose beliefs they expressed — the

^a *Colonial Standard and Jamaica Despatch* (Kingston) (hereafter to be cited as *Colonial Standard*), July 14, 1866 and 1866-67, *passim*.

^b *Morning Journal* (Kingston), 1866-67, *passim*.

planters and the merchants in an economic sense, and the whites and browns in a racial and social sense.

Critics of crown colony governments were unanimous in saying that the costs of government had risen unnecessarily since 1866. Heavy taxation was falling on the productive classes but the proceeds were being used for the benefit of those who paid little—principally the Negro peasants. The *Colonial Standard* went so far as to suggest that the burden of taxation should be shifted from the planters to those who benefited directly from the new or enlarged functions of government.^a Short of a return to representative government, what was needed was a policy of retrenchment in government activities and expenditures — the government should live within the modest resources of the island.

The cause of increased costs was thought to be the new form of government. Jamaica had adopted it in a moment of panic, but had since found that the system was not producing the desired results. The Governor was in effect the government. He was sent to Jamaica to carry into effect the wishes of the Colonial Office without regard to the wishes of the significant elements in the island of Jamaica. He determined policies, directed the writing of bills and, in his capacity as president of the Legislative Council, saw to it that they were passed in all too short a time. The official members of the Council had to do his bidding in any case, and the unofficial members were unable to act as the guardians of the public interest against the overwhelming power of officialdom. The Governor and his officials did not know enough of local conditions and failed to give the public an adequate knowledge of the contents of bills to be passed. Under these conditions the work of the Legislative Council was a farce and the Governor might just as well save time and effort by merely promulgating the legislation that he desired. While it was giving a general support to the work of Sir John P. Grant, the *Morning Journal* said editorially: "Taken all in all we regard the Legislative Council as a sham, and there is no purpose to be served by rendering that sham even greater than it is. The country is governed by one man, whose will is, and ever will be, supreme, whether he be "advised by a Council of ten or of thirteen." A few days later the editor moaned that Jamaica had been treated like a conquered province and given a constitution similar to that of India, as if the Negro insurrection of 1865 were like the Sepoy rebellion. The editor could not understand why, when England and Europe were clamouring for a more comprehensive freedom, ". . . we, in these Colonies, should be cribbed, cabined, and confined within the limits of a Governor's will

^a *Colonial Standard*, Sept. 13, 1866.

and pleasure." The editor's objection was not to the work of Sir John P. Grant as Governor: "... the principle of [crown colony government] is one incompatible with real freedom, and we are opposed to it. It affords no scope for the ascertainment and expression of public opinion." Since the Governor and his official advisers made the laws, ... "why not shut the doors of the [Council Chamber] and issue the laws from King's House, or Creighton, at which the Governor might happen to be located for the time being; in the shape of edicts? That would do as well as to call a meeting of the Council. The thing is a farce. It blinds nobody's eyes. Why not shut up the place? A Council Chamber is a land of slaves."^a

The dislike of increased taxation and of the strong arm of paternal government was no doubt the heart of the matter, but there were other kinds of opposition that deserve mention. The criticism was made that the government bought supplies directly instead of from local merchants; that too many positions in government were held by persons from the United Kingdom, thus making it difficult for young Jamaicans to get employment in difficult times. There was much criticism of the Rio Cobre irrigation project and of the newly-devised court system. The continuance of pure crown colony government was said to be unwise inasmuch as it slowed down the political training of Jamaicans and made them less and less capable of self-government, an argument that left untouched the basic question of the desirability of self-government itself for the island. There was no doubt a general disappointment over the actual accomplishments of crown colony government.^b The expected increase in foreign investment in Jamaica had not materialized and the position of the Jamaican sugar industry had not basically improved. The year 1880 brought both drought and a hurricane and in December 1882 the business district of Kingston was hit by a disastrous fire.^c There was no clear indication of a strong improvement in the economic position of the island, although the introduction of banana culture was a healthy sign.

We have no way of determining how many of the politically conscious people of Jamaica accepted these strong criticisms of crown colony government before the year 1881 or 1882. In the files of the

^a *Morning Journal*, Feb. 5, 21, 1867; May 5, 1868; Jan. 19, 1869.

^b *Parl. Pap.*, 1884, c. 3840, pp. 118, 140-41, 192, 240; *Colonial Standard*, Nov. 18; 1875 and Jan. 4, 1876; *Morning Journal*, May 31, 1867; Grey to Carnarvon, no. 24, Feb. 21, 1877 (Jamaica Archives); *Parl. Pap.*, 1881, no. 425, pp. 5-15.

^c Musgrave to Carnarvon, no. 25, Feb. 7, 1878 (Jamaica Archives); Musgrave to Kimberley, no. 308, Nov. 4, 1880 (Jamaica Archives); *Parl. Pap.*, 1884, c. 3840, p. 128; *Minutes of the Legislative Council* (hereafter *M.L.C.*), XVI (1881-82), App. XLI; *Daily Gleaner and DeCordova's Advertising Sheet* (hereafter *Daily Gleaner*), Aug. 20, 1881.

Jamaica Guardian we find evidence that there were some who did not. While warning the government of Sir John P. Grant that it was moving too fast and ought to inform itself better as to local conditions, the *Guardian* insisted that paternal government had brought at least a moderate improvement in the life of the island. Despite the fact that some people were critical of the government, . . . "Jamaica has not been so satisfied, so contented, so peaceable, and prosperous for many years." If an elective element were introduced into the legislature the franchise would have to be given to all classes. In such an election, who would have the preponderant influence? "The answer is," said the *Guardian*, "the black, small freeholder, and the lowest strata of the coloured people . . . [The whites] would have had no power to have returned such representatives as they wished." The most unfit would be elected to the Legislative Council. Conditions were bad before 1866 — class distinctions, political squabbles, demagoguery, inefficient collection of taxes, a dissatisfied peasantry, etc. — but they would be worse if a democratic constitution were to be introduced. The *Guardian* attributed political dissatisfaction to "a few grumblers — a few croakers and constitutionally dissatisfied persons", and to those who hankered after political power and a share of political plunder.^a As late as 1883 a number of upper class persons expressed themselves as favouring crown colony government. The Custos of St. Catherine said that he was opposed to representation in any form, even for parochial bodies. Similar opinions were expressed by a planter and by a storekeeper at Port Maria.^b

As far as they expressed themselves in the matter, Negroes were opposed to a change in the existing constitution — but for opposite reasons. Whereas they had suffered numerous wrongs under the representative system before 1866, crown colony government was thought to have "produced peace and harmony among all classes of the community" and to have permitted each group in Jamaica to work out its own destiny. Negroes had saved large sums of money in the Government savings bank and had bought freeholds and built comfortable if small houses; never before had the Negro population been more satisfied and contented with their lot than under the system of crown colony government. "We are a law-abiding people, being fully conscious that without the protection of the Government our fellow colonists would not permit us to enjoy the breath we breathe."^c

^a *Jamaica Guardian* (Kingston), Feb. 25, 28, March 12, 1867; Feb. 18, April 25, June 28, 1870.

^b *Parl. Pap.*, 1884, c. 3840, pp. 120, 122.

^c Statement on behalf of Negroes to Royal Commission of 1882-83, *ibid.*, pp. 163-65.

We do not know how long pure crown colony government would have continued in Jamaica without the development of a crisis that would dramatize the dissatisfaction and opposition. When a public meeting was held at Falmouth in 1867 to protest against specific government policies, the question of the wisdom of the constitutional changes of 1865-66 was broached but no resolution against crown colony government was passed.^a In 1870 many Jamaicans became aroused when a court judgment was levied against Sir John P. Grant in the La Have case for detaining a ship bearing munitions of war and the Legislative Council voted over £8,000 to redeem the promissory note of the Governor. During the course of a public meeting held to oppose the assumption of the obligation, a number of deprecatory remarks were made about crown colony government, with mixed reactions from the audience. In addition, a black tradesman arose and insisted that the Negroes of Jamaica were not discontented and the opposition to crown colony government came only from the upper classes. The Imperial Government decided to reimburse the colony for the payments in the case.^b

In 1875-76 an organization called the Jamaica Association became the principal means whereby the desire for constitutional change was brought to the attention of the Colonial Office. At an early meeting of the group. Henry Westmorland, a planter who had been instrumental in bringing representative government to a close in 1865-66, announced that he favoured enlarging the Legislative Council by the addition of the Custodes *ex officio*.^c Early in 1876, Lewis Quier Bowerbank, who had worked closely with Governor Eyre in the crisis of 1865, summed up the beliefs of the members of the Jamaica Association in these words: "Ten years' trial of the new form of government has exposed its deficiencies and shortcomings and convinced those who live under it, that it requires amendments, in order to render it suitable to the wants of the community and calculated to promote the real prosperity of this ancient colony of Great Britain and the happiness of its ever loyal people."^d In November of the same year the association presented a petition to Governor William Grey for transmittal to the Colonial Office.^e It stressed the increased costs of government and the small results that come from poorly planned public works. The petitioners expressed dislike of a system

^a *Morning Journal*, May 31, 1867.

^b *Jamaica Guardian*, April 7, 23, 1870; *Morning Journal*, April 5, 1870; *M.L.C.* IV (1869-70), pp. 78-79, 182-84.

^c *Colonial Standard*, March 8, 1875; *Daily Gleaner*, March 19 and April 14, 1875.

^d *Colonial Standard*, Feb. 25, 1876.

^e *Parl. Pap.*, 1881, no. 425.

which excludes "all men of worth and independence from any real share in the government of their country, denying them any voice in its councils, and depriving them of all control over the raising and expending of the taxes; the system tends to render them indifferent to the march of public affairs, to create apathy and indifference to those vital interests which should properly occupy a prominent place in their lives. It, indeed, strikes at the root of all manhood and self-reliance, and will end in making the inhabitants of this colony a weak, dependent, and childish people." A request was made that the people of Jamaica be given some control over the money which they paid in taxes, and that the persons chosen to take part in government should "really and truly represent the wishes, wants, and opinions of those for whom they legislate." The explanation was later made that the petition asked only for an increase in the number of unofficial members of the Legislative Council.^a

In his despatch forwarding the petition to the Colonial Office, Governor Grey analyzed the list of 2,477 signers and pointed out that they could not possibly represent an adequate sampling of the significant elements of the population of the island, but he made no attempt to answer the objections to the existing constitution. The Colonial Office did not take long to make up its mind, for in February, 1877, the Earl of Carnarvon wrote succinctly that "... Her Majesty's Government are unable to entertain the suggestion that the constitution so recently established should now be altered."^b It is interesting to note that the fiery editor of the *Colonial Standard* had nothing but contempt for the work of the Jamaica Association for he insisted that no change would be satisfactory if it denied "the right of Jamaicans to possess and enjoy the same liberties, immunities and privileges as their fellow subjects remaining in Great Britain."^c

It was not until the political crisis growing out of the famous Florence case that the desire of politically influential Jamaicans for constitutional change became sufficiently powerful to influence the actions of the Imperial Government. In the summer of 1877 the ship *Florence*, bound for St. Thomas with arms and ammunition that had

^a The petition had originally contained an appendix setting out the main features of the constitution which was desired—a Council with a majority of elected members with a high property or income qualification chosen by male voters who were literate and paid at least £1 a year in direct taxes. As a means of gaining a greater measure of unanimity among those opposed to the existing constitution, the appendix was dropped from the petition; William Morrison to Hon. John Mackglashan, acting Governor, April 23, 1877, *ibid.*, p. 16; *Daily Gleaner*, Nov. 3, 9, 1875.

^b Grey to Carnarvon, Dec. 9, 1876, in *Jamaica Archives* and in *Parl. Pap.*, 1881, no. 425, pp. 3-4; Carnarvon to Grey, Feb. 13, 1877, *ibid.*, p. 15.

^c *Colonial Standard*, Dec. 21, 1876.

been bought for use in a projected Venezuelan revolution, put in at Port Royal after having been damaged in heavy seas. Acting upon legal advice, Governor Musgrave detained the ammunition but required the ship's captain to deposit £1,000 in cash as a guarantee that the arms would actually be delivered in St. Thomas—and they were so delivered in due time. A number of actions for damages were instituted against the Governor for the detention of the cargo and the ship. The Governor lost in each case and was finally required to pay heavy damages. The money was paid from the island treasury and then a request was made to the Legislative Council to legalize the payment. The question was at once posed—should the people of Jamaica be taxed to pay damages resulting from an act of the Governor in the imperial interest, when there was no representative element in the Jamaica constitution?^a In December, 1881 a select committee of the Legislative Council was named to study the documents in the case and report on the question of legalizing the payment that had already been made from the island treasury. The committee reported against assuming the obligation inasmuch as the Governor's original action had been taken for imperial rather than island interests. The suggestion was made that "the well-known justice and integrity of the Imperial Government" would keep the Governor from personal loss. The report of the committee was lost by a close vote after Governor Musgrave had privately informed the official members that they must support the Government. With the consent of the Governor, the matter was allowed to rest over the Christmas holidays. Petitions against payment were coming in and in January, 1882, the Legislative Council passed a resolution that it agreed with the "prayers" made in them—a vote that was made possible by the resignation of two official members who in December had refused to cast their vote on the order of the Governor. George Solomon, a leader of the unofficial members, eventually proposed a series of resolutions on the Florence case, but Governor Musgrave defeated them by the use of his casting vote.^b

Money had been paid from the Jamaican treasury without legislative sanction and no vote had been obtained to legalize it. The question was therefore thrown back on the Colonial Office, where it was decided to recommend to the Treasury that the Imperial Government pay one half of the sum in question if the Legislative Council of Jamaica would assume the other half. Treasury officials were anxious to prevent the payment of damages in the La Have case from

^a Musgrave to Carnarvon, no 156, Sept. 7, 1877, no. 174, Oct. 10, 1877, and 197, Nov. 17, 1877 (Jamaica Archives); *Parl. Pap.*, 1882, c. 3453, pp. 11-15, 21-39; *Daily Gleaner*, Oct. 8, 24, 1881.

^b *M.L.C.*, XVI (Dec. 1881—Jan. 1882) *passim*, and App. XXVIII; Musgrave to Kimberley, no. 12, Jan. 20, 1882 (Jamaica Archives).

becoming a precedent, but were willing to pay a half because of the fact that there was no elective element in the Jamaica constitution.^a This decision was followed up in Jamaica in November, 1882. The official members of the Council, by that time brought up to their full complement by the appointment of two new members, voted as a unit to support the Governor and pass the resolution for paying one half of the damages in the Florence case. The response of the unofficial members was quick and decisive, for on the next day they resigned as a body. Their action was in protest against a system in which the Governor, by complete command over the will of each official member of the Council, could pass any bill or resolution that he desired. In such a government, they said, debate was only a phantom: no man of self-respect could take part in it. The Colonial Office decided not to appoint a new list of unofficials until the Royal Commission on West Indian finances, appointed in December, 1882, made its report. Meanwhile, legislation could be passed by the Council whenever a quorum was present, despite the absence of the unofficial members. A special Order in Council was promulgated to make the point clear.^b

The principle that a crown colony must assume its share of the burdens following from membership in the British Empire had been weakly upheld, but petitions were received in Jamaica against paying even the half provided for in the vote of the Legislative Council. The question of changes in the constitutional system of Jamaica still had to be dealt with. The Royal Commission appointed in 1882 was to investigate the finances of the West Indian colonies but was also permitted to concern itself with constitutional problems. The Colonial Office, however, had already received sufficient evidence of dissatisfaction in Jamaica and was soon to receive a specific suggestion as to constitutional change. In January, 1883, a public meeting at Falmouth adopted a resolution against the existing form of government and sketched the outlines of a proposed constitution which called for a legislative council with a strong majority of elected members.^c In November, 1883, a delegation of Jamaicans met with the Earl of Derby, Secretary of State for the Colonies, to present its views on desirable changes in the Jamaica constitution.^d The

^a *Parl. Pap.*, 1882, c 3453, pp. 64-66, 69-72.

^b *M. L. C.*, XVII, pp. 6, 11-12, Nov. 7, 9, 1882. The Order in Council is dated Feb. 14, 1883; *ibid.*, p. 29.

^c *Parl. Pap.*, 1882, c 3453, pp. 64-66, 69-72.

"Petition from the Inhabitants of Jamaica for a change in the Constitution of that Colony", *Parl. Pap.*, 1884, c. 3854. The West India Committee in London supported the addition of a number of appointed unofficial members to the Legislative Council; *Jamaica: Papers relating to Proposed Changes in the Form of Government* (Introduction by George E. Price. London, 1884), pp. 2-3.

^d *Ibid.*, pp. iii-iv.

Colonial Office also discussed the problem with Sir Henry Wylie Norman, who was soon to become Governor of the island. The decision to amend the constitution was embodied in an important despatch which Sir Henry was to receive upon his arrival in Jamaica, so that he could explain it more effectively to the public. The request of the Falmouth meeting for a large majority of elected members was not granted, the Colonial Office preferring a more moderate reform. The new Council was to have the same number of members as the old, except that the unofficial members would be elected instead of appointed. On questions of finance, the votes of the *ex officio* and appointed members were not to be taken if six of the nine elected members voted in opposition—though the Governor was to have a reserve power to declare that the provision in question was of paramount importance and therefore had to be passed in any case. On other matters the official members were to vote with the government unless the Governor definitely freed them to act as they pleased. The elective members were to be told that there was no desire to use the united vote of the official members against them unless it was absolutely necessary to do so. The Governor was to appoint a local commission to study the question of the franchise and electoral districts. A further despatch of the same date was sent to give directions as to island finances until the new system was framed and put into operation.^a

Three days after his arrival in Jamaica, Governor Norman published the two despatches for public information and received a quick response—the proposed changes were unsatisfactory because they did not make enough concessions to public opinion. At a “private meeting of gentlemen” held in Kingston on the last day of the year strong objections were made to the proposed constitution: the elected members were not given enough power and would not be able to exert much influence on future legislation; the power given to them was so fettered as to be practically useless. In giving a written answer to the letter sent to him from the meeting—he refused to confer directly with the convenors—Sir Henry Norman promised that his discretionary and reserved powers would be used in a very limited way, and expressed the hope that no bitter representations would be made against the proposed constitution.^b

Further opposition to the new proposals was registered at public meetings at Kingston, St. Ann's Bay and Mandeville, but the Governor thought that they proved ineffective in rousing public

^a *Parl. Pap.*, 1884, c. 3854, pp. 6-9.

^b *Ibid.*, pp. 9-16; Norman to Derby, no. 415, Dec. 24, 1883 (Jamaica Archives); *Jamaica: Papers relating to Proposed Changes in the Form of Government*, pp. 10-38.

opinion generally and that the Imperial Government should proceed to the writing of an Order in Council.^a Since considerable time was needed in London to consider the reports of the local commission on electoral divisions and the franchise, as well as the resolutions of the three public meetings in Jamaica, it was not until May 19 that the final Order in Council was published.^b

In the new Legislative Council there were to be four *ex officio* members plus as many as five other appointed persons. The Governor was given definite power to force office holders to become members of the Council and to suspend any of the five appointed members. There were to be nine elected members who must possess one of a number of possible qualifications—a clear annual income of £150 from the ownership of land or £300 from business, or the payment of direct taxes or export duties of at least £10 a year—the qualifications being very similar to those provided by previous statutes. Qualifications for voting in the election of members of the Legislative Council were somewhat more liberal than those in force before the adoption of crown colony government in 1865-66. When the problem of the franchise was under discussion by the local commission, it was at first thought that literacy should be a necessary qualification. On further consideration, however, it was decided that in making the first election lists, illiterate persons should be included if they possessed the other qualifications.^c

Despite the introduction of elected members into the Legislative Council, the dominant element in the new system was the Governor and the *ex officio* and appointed members. No bill putting a charge on the public revenue was to be passed by the Council unless it had been proposed by or under the direction of the Governor or had his approval. The Governor or his substitute was always to be present at meetings of the Council and was to have both an original and a casting vote. A very slight concession to the wishes of the elective element was given in the provision that the votes of the *ex officio* and appointive members should not be recorded in support of a money bill if as many as six elected members had voted against it, or in support of any other bill if all of the nine elected members were opposed. This seemingly generous provision was not to operate in those cases in which the Governor declared that the bill was "of

^a Norman to Derby, Jan. 29 and Feb. 18, 1884, *Parl. Pap.*, 1884, c. 4140, pp. 7-8, 22-23; same, no. 55, Feb. 6, 1884 (Jamaica Archives).

^b *M.L.C.*, XVIII, pp. 7-12, April 18, 1884. The Order in Council may be found in *M.L.C.*, XIX, App. E., pp. 3-7, and in *Parl. Pap.*, 1884, c. 4140, pp. 32-41.

^c Potential voters of greater age had not had adequate opportunity to learn to read and write, and it was too difficult a task to fix an age limit below which this special concession could be refused to the illiterate; *ibid.*, pp. 14-18, 24-27.

paramount importance to the public interest." A very moderate civil list was included in the Order in Council.

The first election for membership in the new Legislative Council of Jamaica was not particularly exciting, except perhaps in Kingston-St. Andrew. Seats were uncontested in three constituencies and the candidate in each was declared elected after having been nominated by a number of friends. The Kingston election campaign, beginning in July and lasting up to election day itself, was much more colourful. The newspapers made references to the use of innuendo and slanderous remarks, not by the candidates but by their subalterns. One editor suggested that the electioneering was not like that in England, where truth was sought, but rather like that in the United States. One gets the impression in reading the political speeches that they were not so much slanderous as verbose, florid, and lacking in substantial content. The enthusiasm of voters was for their respective candidates and not for the new constitution as such. The one great surprise in the election was the defeat of George Solomon in Kingston-St. Andrew, who had been considered as the leader of the movement for constitutional change and had the support of most of the Kingston newspapers. His Jewish ancestry was obviously used against him, for after the results of the poll were known, the supporters of William Malabre, the successful candidate, escorted him to his home with cries of "Down with the Jew!" In Hanover-Westmoreland a religious issue was injected into the campaign by charges that one of the candidates held unorthodox views. The campaign seems to have been largely free from the racial issue of colour, if for no other reason than the fact that the white and coloured voters had no reason to fear the power of the small Negro electorate.*

The agitation for constitutional change had been carried on by white and to a less degree by coloured leaders in the island and the grant of a new constitution, limited though it was in its provisions, had been their victory. An analysis of the life histories of the nine successful candidates provides us with some very interesting information: all of them were either white or had such a small admixture of coloured blood as to be able to pass for white; four were born in Jamaica, four in the United Kingdom and one in France of Scotch-Irish ancestry; three received their most advanced education in Jamaica and five in the United Kingdom; two were engaged primarily in business, five were planters, one was a lawyer and one was interested in both business and planting; at least six

* *Budget, Gall's Daily News Letter (Kingston), Daily Gleaner, Colonial Standard, July-September, 1884, passim.* A list of the elective members may be found in *M.L.C.*, XIX, pp. 1-2, Sept. 30, 1884.

were or had been magistrates, Custodes or members of parochial boards. In a very real sense they represented what Jamaicans of the day liked to call the "intelligence and respectability" of the country. It is not surprising that there was no black member in the Legislative Council, which, indeed, was much lighter in complexion than the last House of Assembly under the old representative system.^a

When Governor Norman opened the first session of the new Legislative Council on September 30, 1884, he reminded the members that the new franchise was more liberal than that existing in 1865. Since the question of further changes of the franchise and the form of government was in the hands of the Imperial Government, the members of the Council should concentrate their attention on other kinds of legislation. He promised "to uphold the dignity of the Council, and, as far as may be practicable, to consult the convenience of the members." The answer of the Legislative Council to the speech of the Governor was moderately critical in spirit. Regret was expressed that the Order in Council creating the constitution included a civil list, "there being in our opinion no power possessed by the Crown to legislate, but only to create a Legislature and Government, and against this we must record our formal protest." The Council expressed dissatisfaction over the lack of any reference to retrenchment in the cost of government — a statement that was reminiscent of struggles between Assembly and Governor in former days. The Council expressed its disappointment at the Governor's request that they make no attempt to bring about further changes in the constitution and franchise, and added rather sadly, "... we trust at no distant date to prove the fitness of the country for both." Such a reply to the speech of the Governor was made possible only by the presence of a majority of elected members in the Legislative Council.^b

The unhappy mood of the Legislative Council—that is, of the elected members—was more than matched by that shown in a considerable number of newspaper editorials. *Gall's Daily News Letter* suggested that there be no celebration at the opening of the new Council lest England should think that Jamaica was satisfied "with the meagre and totally inadequate amount of political freedom that has been given to us. The people of Jamaica are thankful for the small mercies they have received, but they are far from being satis-

^a A brief biographical sketch of each of the elective members of the Legislative Council is given in the *Daily Gleaner*, Sept. 24, 1884.

^b *M.L.C.*, XIX, pp. 2-8, Sept. 30, 1884. As a means of reducing ill-feeling at the provisions of the new constitution, the full complement of appointive members had not been named.

fied." And later: "The people desire and deserve full political freedom, and they hopefully look forward to the time when Her Majesty's Government will unhesitatingly and fully concede all their political rights. . . This fair country may have to plod along for years without getting one yard ahead of the extremely moderate step in advance which has just been granted." For this reason, "...unity ought to characterize the proceedings of our new legislators." The people could never be satisfied until Jamaica was "placed abreast of the Dominion of Canada in respect of political privileges. This time we must go on, not merely for the restoration of our House of Assembly, but for real Responsible Government." The editor of the *Budget* prophesied that the question of further constitutional change would come within five years.^a

The first session of the new Legislative Council passed with relative quiet. The elective members showed a disposition to refrain from serious quarrels with the Governor^b; the attendance of members was excellent and a considerable amount of legislation was passed. At the close of the session, Governor Norman was able to say that the Council had done "some substantial work", but he was convinced that before long definite efforts would be made to obtain an increase in the number of elective members in the Legislative Council.^c

A system of representative government founded in the seventeenth century had, in a moment of fear bordering on panic, been overthrown by those who operated it. Dissatisfaction with the new constitution had soon developed among those who had abolished the old. The methods used in expressing the growing dislike of pure crown colony government were varied: newspaper editorials and letters to the editor; public meetings and the memorials which they sent to the Governor or to the Colonial Office; deputations to the Colonial Office to state grievances and to request changes in the form of government; and in the Florence case, at least, vigorous action in the Legislative Council to oppose the policies of the Governor and his superiors in England. The Imperial Government was not inclined to change a system of government that had so recently been instituted, but it relented when it was convinced that the influential

^a *Gall's Daily News Letter*, Sept. 27, 30, Oct. 2, 1884; *Budget*, Oct. 4, 1884.

^b Considerable ill-feeling had been created at the re-appointment to the Legislative Council of a person who in the Florence case had entered the old Council on the distinct understanding that he would support the Governor. There were rumours that all of the elective members of the new Council would resign unless the appointment were cancelled, but it was decided not to press the matter. *Colonial Standard*, Sept. 11, 1884; *Budget*, Sept. 26, 1884; *M.L.C.*, XIX, Sept. 30, 1884.

^c Norman to Derby, no. 120, April 1, 1885 (Jamaica Archives); *M.L.C.*, XIX (1884-85), *passim*; *Evening Express* (Kingston), April 1, 1885; *Colonial Standard*, April 2, 1885; *The Laws of Jamaica [1880-1885]* (Institute of Jamaica).

elements in Jamaica were practically unanimous in their desire for reform and would not co-operate with the Governor so long as their wishes were not granted. While crown colony government was not dependent on public opinion for each of its acts, public opinion could not be permanently ignored if the system was to continue at all. The Imperial Government evidently understood this and granted a moderate change in the Jamaica constitution when it found that influential elements in the island would not co-operate under existing conditions.

THE PROBLEM OF CULTURAL INTEGRATION IN TRINIDAD

By

LLOYD BRAITHWAITE

Every social system possesses some symbolic means by which the unity of the society is affirmed. In those societies which are highly stratified or in which there are several groups with sharply divergent cultures, there tend to be a variety of such means. In the case of Trinidad, we have a highly stratified society in which there is nonetheless a great deal of common cultural allegiance. It is to be expected therefore that many of the "national" ceremonies will reflect the stresses and tensions within the society.

An analysis of the Carnival, one of the distinctive features of Trinidad culture shows that it contrives to be a national festival while at the same time there exists a struggle for its control and reform waged by the upper classes. This is only one aspect of the problem of cultural integration, that is, the problem arising from the different forms of "expressive" behaviour on the part of different sections of the community. It is perhaps in this connection that Professor Simey's saying that "the West Indian needs a culture in which he can find himself at rest" has its most significant meaning.

The island society faces the problem of integrating the minority sub-cultures of the Hindus and the Muslims. But this can be considered to be a special case. Even when we neglect the Indian minority we find a lower-class sub-culture which makes the problem of integration seem more difficult and interesting. We find in the society a field of expressive behaviour ranging from the British Council to those who look backwards to Africa for cultural inspiration. The difficulty in establishing a common norm is well illustrated in attitudes towards the British Council. Its activities in the island have been greeted with great enthusiasm by some, but have met with a great deal of reservation from others. In view of the prestige which Great Britain, as a metropolitan country, and Britishers resident in the island enjoy it is not surprising that there are people who enthusiastically support the importation into the island of the "best of British culture".

The British Council has been described by one of its representatives as the "projection of Britain" on the world abroad (2). It was originally formed for the purpose of spreading knowledge of Britain to foreign nations. However, with the war, it was decided to

turn the attention of the British Council towards colonial areas as well. Trinidad, like other colonial areas, became one of the scenes of operation.

The activities of the British Council were at first rather confined. The giving of scholarships, supplying of books, etc.—these were activities which appeared innocuous enough to the bulk of the population, while positively welcomed by those who benefited from them. The first real impact that the British Council had on the general population was through the visit of Mr. Harold Stannard. Unlike previous visitors, Mr. Stannard showed an immense curiosity in getting to know the country and in particular the way people felt. He addressed meetings up and down the country. Mr. Stannard had to bear the brunt of the resentment which the educated radical groups felt towards those in authority. It was commonly believed in view of the unusual nature of his visit, that he was an intelligence officer, which in some sense at least he was. What was more surprising was that people became worried because they believed him to be a "spy". What exactly the term "spy" connoted in this connection was not clear. It seemed to reflect the somewhat paranoid attitude of the radical and served the function of labelling the unusual European as "an enemy" in spite of whatever evidence of goodwill he shewed.^a

Some idea of the suspicion with which he was received can be gathered by that prolific provider of written evidence of the radical view, Dr. Tito P. Achong. In his second report as Mayor of the City of Port of Spain he devotes a special chapter to Stannard headed "Peripatetic propagandist of British culture" (1). Here he describes how he met Mr. Stannard in the Town Hall—"The function of Mr. Stannard obviously was to push down his brand of British culture into willing or unwilling throats of the people of this land." After some preliminary parrying... "I then braced myself for direct action. We snapped brief stories on 'culture'. I told him in as clear a manner as I could that his notion of a cloistered British culture for the Trinidad community must be ruled out as a paradox. The component parts of the community had had cultures of their own long before William the Conqueror had landed in England in 1066. It would be unwise for the Chinese and Indian sections of the people of Trinidad, I said, to forsake the past glory of their ancestral homelands and to be unmindful of their future generations for British propagandist 'culture'. As for Afro-West Indians it was their solemn mission, I emphasized, to gather as far as practicable, the

^a This belief in Mr. Stannard as a "spy" and of the British Council as a spying organization was recently expressed in conversation by one of the most prominent coloured persons in the island community, and one, moreover, active in "progressive" work.

learning and culture of all lands and to synthesize them into an organic whole. This was too much for the British Council's professional propagandist. He stood up, salaamed in old-time Oriental fashion, and departed."^a

This attitude on the part of Dr. Achong was shown at a different period of time by Albert Gomes, who was at one time the leading "literary" and "art" critic in Trinidad, and also by Lennox Pierre, the Secretary of the Trinidad and Tobago Youth Council. In private it was shared by at least one other outstanding figure in the realm of 'culture' who, nonetheless, gratefully accepted a British Council scholarship when it was offered for study in England.

The section of the British Council's activities which aroused these objections was not its scholarship programme. There was no objection to people being sent to Great Britain for the purpose of absorbing British culture. In the first place, the visit to England gave the recipients of the scholarship additional status. In the second place, their visits were likely to result in promotion within the civil service and in the teaching profession, or to Government appointments if the recipients were not already employed in the Government service. Hence it was that a radical anti-imperialist Trade Unionist accepted the offer of a six-week visit to the United Kingdom in order to make a study of Trade Unionism there.

The hostility to the Council's activities developed, rather, over some of its activities within the island itself. It assumed the significance it did because of the symbolism of class current in the society. The upper classes and the middle class of the island, (including the native-born Trinidadian) have always aspired towards accepting the culture of Western Europe in general, and Great Britain in particular. A visit to the United Kingdom, to the Continent of Europe, to the United States or Canada, necessarily brought about status. It indicated that one was, first of all, in a financial position above the ordinary and secondly, it was symbolic of having been able to achieve a higher sense of values. There was an almost magical belief in the possibilities of a visit abroad which somehow transformed the individual into a new person. He was likely not only to assume a new status but to have this new status thrust upon him. The native Trinidadian, now usually a professional man, was suspected of wishing to cut his roots, to free himself from any local acquaintances who had not found themselves in this privileged class

^a For Mr. Stannard's own evaluation of the situation in the West Indies see his chapter in *Fabian Colonial Essays*, Ed. Rita Hinden, Allen and Unwin (3). At a public meeting Mr. Stannard declared that he knew how West Indians felt because he was Jewish and the Jews had been described as the 'niggers' of Europe; nonetheless, he felt that the British Empire was "the greatest force for good in the world today".

Casual acquaintances or even friends waited for him to determine what their new relationship would be. They would often hesitate to greet the recent arrival for fear of being snubbed. From this arose the spate of jokes which in white as well as coloured society reflected the anxieties and hostilities that arose from the ambiguous position that resulted from the need to re-define the status of the individual on his return. For instance, there is the oft-repeated story of the young man who on returning from the United Kingdom visited the market and affected not to recognize the crabs for sale there. However, when one of these bit him he was pleased to recognize, in real creole speech, the creole remedy "Squeeze he eye!"

Even among the radicals this straining towards acceptance of British values existed. The Trinidad Labour Party was modelled on the British Labour Party, and its leader, Captain Cipriani, was fond of saying that what was good enough for the British Labour movement was good enough for him. The demands of the Trade Unionist and the Labour movement were for social services "as is done in England"; so that even when the British were being beaten they were beaten with a British stick. This incorporation of a British and a European scale of values in matters of taste and aesthetics, personal and social, for long went unquestioned. It was indeed very largely unconscious and unacknowledged. Thus it was that Trinidad and West Indian students in England could show appreciation of a group (which had provided them with a Christmas dinner prepared in order to show them a typical English Christmas) because, as they expressed it, their English hosts had gone out of their way to provide them with a Christmas dinner such as they were accustomed to in the West Indies.

Artistic societies—The Trinidad Musical Society, La Petite Musicale, The Trinidad Art Society, and the like—existed and even flourished. In many respects the aesthetic and artistic interests overcame some of the social barriers of class and caste. At the same time the attitude towards the popular culture of the social groups from which these individuals derived was one of tolerance mingled with contempt. If Carnival and the Calypso were indulged in, they tended to be placed in a somewhat different category from real art.

There was never at any time any effort on the part of the 'cultured' to create their own art. Listening to recorded music, reproduction of plays written in and for a different culture whether they were appropriate or not; such were the activities that dominated the activity of these groups. In painting there was little original work done.

With the rise of a new self-consciousness and a new sense of belonging there developed a serious concern for 'creative' work, for

things that would reflect the individuality of the author and the individuality of his origin. To many it appeared, to use the categories of Sapir (6), that the culture after which they had been striving was a spurious and not a genuine one. New writing that dealt with the local scene started to appear in the 1930's—C. L. R. James "Minty Alley", Alfred Mendes "Black Fauns", and "Pitch Lake", were the first indication of this concern. The only previous novelist whom Trinidad had produced before this was the well-known author, W. J. Locke^a. Since then there has appeared a spate of poems and short stories dealing with the local scene. The attitude of most of the educated groups was that of being lost in a void. There was the tearing away from the orientation to European culture in the search for something distinctive, but at the same time there was nothing that could replace it.

The problems and the attitudes of the Trinidad intellectual were well described by Willy Richardson in a poem which took pride of place in a collection, "Best Poems of Trinidad":-

"Here is a land of flowers
Here is a land of showers.
Tourists say it is a lovely land
Here is a land of brilliant sunshine
But it is not yours and it is not mine.

Here is a land that men have conquered
Here is a land that men have owned
Here is a land for 'Auld Lang Syne,'
But it is not yours and it is not mine.

We are men without a country
We are men without a faith.
We are men without a future.
We are men who wait for death.

Meanwhile we giggle gaily
Meanwhile we hide our pain
Seeking a moment's adjournment
From the court-martial of the brain.

And tomorrow the hills will be looking fine
But they won't be yours and they won't be mine."

^a Locke was a European who although of Trinidad birth never wrote of Trinidad life,

In their search for roots, for some sources of inspiration, several of the 'artists' of the society turned towards the despised culture of the man in the street. After all, the only song or work of art of any kind that has expressed anything of a patriotic sentiment was the Calypso composed after the Carnival riots of the 1880's:-

In my own, my native land

"Can't beat me drum.

In my own, my native land.

Can't have we Carnival.

In my own, my native land.

Can't have we bacchanal.

In my own, my native land.

In my own, native land.

In my own, my native land."

The problem for the artist in this society was the more difficult because in so far as he created anything worthwhile he had to look outside of himself for an audience and for a market. The criticisms and appreciations which he valued were, perhaps wisely, not those of the local critic but that of the British and American world. Appreciation on the local level tended to develop into mutual admiration societies in which unless there was some question of personality or other extrinsic factor involved, one author favourably reviewed another's work in return for a like favour that he expected to be granted.

The position of the artist reflected the position of the whole society. In so far as the original cultural heritage of their ancestors (mainly African) was lost, in so far there was an easy incorporation into and participation in the life of the metropolitan area. This rendered educational and consequently political advance easier perhaps, but it shifted as a consequence the centre of gravity of the community so to speak to a position outside itself. This was the price that had to be paid.

The failure to develop any centre of intellectual life in the colony was, however, only partially consequent upon this fact. The historical tradition in the West Indies was one of sending children abroad to be educated. Hence there has never been, until the situation was remedied recently, any provision for higher education in the area. This has served not only to limit the numbers of people who receive higher education but also to prevent the development

of any intellectual centre of learning. From this point of view it must be remembered that until the recent establishment of the University College of the West Indies those who received higher education did so not as a group but as separate and scattered individuals. Whatever group-loyalty developed to any institution of higher learning was a loyalty to something in a foreign country, to something far distant where sentimental ties of a tenuous nature could replace any active organization. This was hardly likely to produce practical results. Moreover, the education which was received in the higher centres abroad tended to be of a mainly professional kind. Certainly there was very little experience of research. This was important because it is conceivable that the development of research in the social sciences (in history, psychology, sociology) or even in social work might have helped to bridge the gap between the middle-class artist on the one hand and the social reality that surrounded him.

As it was, the world of thought and imagination, trained to deal with thoughts and objects so often foreign to the individual's experience, became separated from the world of everyday living. The absence of a cultural tradition, of any possibility of what one might term, 'apprenticeship' made the task of learning technique, and of developing appropriate attitudes difficult. Denied mobility and possibility for movement in the social system many coloured middle-class intellectuals went in for artistic work as a compensation and were not seriously moved by any creative impulse. There was an inordinate hankering for achievement and distinction overnight. Quick publication and favourable review in the local press gave one the dignity of being a poet and an author. And publication, in the absence of any publishing firms, was simply a matter of individual action. Over-night reputations mushroomed. Always there was the absence of impartial criticism.

For such criticism one had to go abroad and this resulted frequently in actual emigration from the island. C. L. R. James, Alfred Mendes, Eric Williams, Samuel Selvon and others, all emigrated abroad, only a few to return. Most of those who managed to make any money out of writing have done so by their sales to the English and American public; or by broadcast of their productions to the West Indies by the B.B.C's overseas service, "Calling the West Indies".

The social-class-caste structure of the society tended in some respects to hinder the development of any mature form of expression. Those who were technically the most competent came from the most isolated of the social groups—the upper class. Even where technical interest overcame social isolation the development took place on

separate lines. Thus, the dramatic societies in Trinidad have developed along racial lines. There are white dramatic societies and coloured ones. From one point of view this division did no harm as long as the dramatic societies produced plays with European backgrounds. The appearance of a mixed racial group in such a play would probably have appeared incongruous to the audience in a society where there was such a high degree of sensitivity to the problem of racial relations. In recent years there has been only one locally produced drama written by a Trinidadian. Perhaps it is no accident that this first effort was written about the conquest of Trinidad by the British and thus did not touch on any of the tensions that exist in present-day Trinidad society.

Some of the intelligentsia became absorbed in this 'reproductive' sort of activity and to this group the work of the British Council in providing facilities of one sort or another caused the Council's activities to be viewed in a favourable light. But to those who were interested in 'creative' work these activities seemed to constitute a threat to their position and to what they were striving for. The 'imposition' of British culture was resented and interest was directed toward 'expression' among the masses.

The existence of two separate and distinct cultural expressive patterns corresponding to social class not only symbolized the difference between the classes (the lower class on the one hand and the rest of the society on the other) but helped to accentuate further the difference between them. To a certain extent there was an acceptance of much of this lower-class 'culture', notably at Carnival time. But this acceptance was only of a limited nature. The people of the towns were unaware (the upper and middle classes totally, the lower classes partially) of the dances and the songs of the countryside. When, for instance, a collector of folk traditions gave an illustrative lecture in Port of Spain on the "Folk Songs and Folk Dances" in the island, most of the people attending had never seen the Limbo Dance, the Bongo Dance or the Calinda, although most of the participants were drawn from villages on the outskirts of Port of Spain.

The results of this attempt to draw on these 'folk' traditions led to the creation of two dance groups—the "Little Carib" and the "Holder" dance groups. These have survived over a period of years and bid fair to become permanent features of the cultural life of the community. Some of the folk dances have also been introduced as physical education into the rural schools.

This turn in interest towards the masses has revolutionized people's attitude. Previously items such as the Shango, the Bell-air dance, were dismissed as unimportant at least, if not hostilely

opposed. Periodically there would appear an outcrop of letters in the press in which the behaviour of people at "wakes" was criticized and the "wake" itself condemned. The Shango flourished in out-of-the-way country parts and on the outskirts of the city. Even Calypsonians poked fun at the Shango and the Shouter:-

"It was in the height of Guanapo
That I met up with a dance they called Shango
While travelling through the vicinity
I heard them singing melodiously
Azangana! paratico—Oh!"

"A group of voices singing so loud
As if they want to buss a hole in the cloud" (Tiger)

On the whole the idea of most people was to differentiate themselves as much as possible from anything that sounded "African". "African" was associated with the primitive, the barbarous and the uncivilized, and in fact, the idea of Africa and its inhabitants corresponded in no small measure to the stereotype so often to be found in the United Kingdom. With the search for some form of national expression, and with the resentment against those of the ethnic groups which had retained a greater portion of their original cultural heritage (the Indian group in particular) the attitude markedly changed.

Members of the Negro Welfare and Cultural Association and similar groups had shown some interest in African survivals. (One member of the Negro Welfare sang at one of their concerts a Yoruba song which his grandmother had taught him.) But these were lower-class groups. Now respectable people started advocating a revival of Africanism. A prominent lawyer, at one time active in the Parent-Teacher's Association (now defunct), advocated the teaching of Yoruba and other African languages in the schools. (Periodically this suggestion arises among the more extreme of the Negro Nationalist Movement, but is so impractical as never to have received any serious attention). There began a diligent search for folk tunes and attendance at Shango dancing became a permissible activity, although actual participation was tabooed. Among certain circles the fact that something was of African origin made it more acceptable than it would otherwise have been.

However the search for a distinctive and national form of expression which would both symbolize and give unity to the society

was not altogether easy. The areas in which the lower class seemed to have the most to contribute were areas heavily associated with the more despised forms of lower class behaviour. The singing and dancing of the lower class were associated with relative freedom and lack of inhibition. The words of the songs were frequently, by upper and middle class standards, vulgar; and the dancing struck the inhibited as being exceedingly erotic in nature. Again, the contribution which was most acceptable from the point of view of the 'culture' of the community, the steel band, associated as it was with Carnival, became tabooed on account of other socially reprehensible factors associated with it. The problem of uniting the various forms of expressive behaviour into 'national' patterns are so well illustrated by the steel band movement that some account of it is given here.

THE STEEL BAND. ^a

The ethnologist interested in tracing cultural elements of African heritage will find few evidences of African drums still surviving in the island. In the Shango groups, and the Rada groups in the outlying districts of the island are to be found a few drums, but the variety that apparently is to be found in a country like Haiti does not exist in Trinidad. The reasons for the relative decline in the drums are numerous. The attitudes of the people towards things African, the increasing urbanization of the island, the breach with the creole culture through the substitution of English speech—all played their part. Of more interest, is the effort on the part of the authorities to control the expressive behaviour of the masses. Proper historical accounts are not available; however, Osborne Innis, himself a coloured creole, but sympathetic to the suppression and reform of the lower classes, has given an account which conveys at least some of the spirit with which the reforms were carried out (4). He refers in his reminiscences to the obnoxious practice of beating the big Bongo drums. Huge crowds would assemble in the yards and the beating of the Bongo drum would proceed throughout the night. Great difficulty was experienced in the controlling of the nuisance until Government hit upon the idea of prosecuting in an indirect way those who were associated with the criminal elements who frequented the yards where these drums were played. This was alleged to have had the desired effect.

Although there is no strict enforcement of the legislation to control, the laws on the statute book still remain (5):-

^a In giving this account I am indebted to the steel band committee.

80. Every person or occupier of any home, building, yard or other place who shall:

1. without licence under the hand of a commissioned officer of constabulary permit any persons to assemble and play or dance therein to any drums, gong, tambours, bougees, chac-chac or other similar instrument of music at any time between the hours of ten o'clock in the evening of one day and the hour of six o'clock in the morning of the next day, or

2. permit any person to assemble and dance therein the dance known as "Bongo" or any similar dance, shall on conviction before a Magistrate be liable to a penalty not exceeding ten pounds, and it shall be lawful for any constable with such assistants as he may take to his aid, to enter any home, building, yard or place where any persons may be so assembled and stop such dance or seize and carry away all such drums, gongs, tambours, bougees, chac-chac or other instruments of music.

Likewise during Carnival Day there is still placed upon the streets of Port of Spain placards prohibiting, among other things, the beating of any drum or the tooting of any horn. These prohibitions although violated nowadays without any prosecution must have materially helped to bring about the disappearance of the drums. At any rate on Carnival Day, as in the countryside for Bongo dancing, a substitute for the drums was found. For weeks before Carnival branches of bamboo trees could be seen being dragged through the streets for a new type of "drum" involving the beating together of specially selected pieces of bamboo. The Bamboo tambour (tambour) became synonymous with Carnival. It was a cheap form of music and Carnival began on Monday mornings with the invasion of the streets by bamboo bands. Some idea of the emotional significance of the bamboo band can be indicated by the fact that one Calypsonian in recounting the loneliness of a Trinidadian in New York sang:-

"New York ain't got breadfruit
All they have is grapefruit.
Bamboo band and chac-chac
Waiting for you here in Sangre Grande."

The bamboo band reigned completely for a number of years, the only addition being the bottle and spoon—one to a band. Gradually there were added the hubs of motor car wheels and other metallic car parts that could produce the required sounds. These metal instruments had gradually replaced the bamboo when the second World War broke out.

During the war years Carnival was banned as well as were demonstrations in the streets. Frequently the steel bands, which, in view of the prohibition, now "practised" indoors, invaded the streets only to be put down by police action. For instance, when one steel band appeared at the Queen's Park Savannah to support the pro-

letarian team 'Colts' in the Amateur Football competition they were dispersed by police action.

These clashes between police and steel bandsmen increased in number when gang warfare between the rival steel bands developed. During the war this was due to poor police supervision, the social and psychological dislocation resulting from the establishment of the American Bases, and the consequent break-down of social control. The removal of the outlet of Carnival during the war years was also of great significance.

Immediately after the war there was a great revival of Carnival which automatically took place on V-J and V-E days before the holding of Carnival on the usual Carnival days became legally regularized. The steel band became popular and there was a great improvement of technique. The improvement in technique immensely increased the popularity of the steel band, but at the same time its connection with gang warfare was so acute that attitudes towards the bands continued to show a strong element of disapproval.

The hostility towards authority, and in particular towards the police, expressed by the members of the steel band to those making the steel band survey in 1949 was extreme; most of them replying to the question as to what they would do if they saw a policeman injured and in need of help by the roadside by saying that they would pass him by and would render him no aid. In part this resulted from bad handling of the situation by the police and possibly from a too severe or indiscriminate prosecution of offenders. Certainly there were other elements in the situation as well. The increasing sophistication of the steel band necessitated a great deal more practice, co-ordination, leadership and organization than before. Such development seems to have served to weld the steel band into a closely knit primary group with strong aggressive tendencies towards outsiders. At the same time the powerful beat and exulting rhythm of the steel band seems to have given confidence to its members. One steel band Calypso describes how "asleep in his cachot" he dreamt of a steel band going to fight Hitler:-

"Adolf Hitler, here comes the enemy
We are quite prepared for the Bad Man from Germany
No bayonet, no gun,
The beating of the steel band go make him run.
So, Hitler, Be on your guard.
I mean, it's the steel band from Trinidad."

Whatever the sources of the hostility, its proportions became alarming, particularly when fights between rival gangs took place on the streets to the risk of life and limb of innocent bystanders; and

when, too, pedestrians on the street were 'bounced' (given slight cuts with a razor on the arms) just for the fun of it. The attitude of repression which first characterized the official attitude proved unsuccessful.

Fortunately there were some far-seeing individuals in the community who recognized the steel band as an indigenous expression which needed encouragement and who consequently sought to wean the steel band away from its criminal associations. Their point of view was adopted by the Colonial Secretary of the time and a Committee was appointed to carry out a sociological survey of the steel bands of the Port of Spain area; to make recommendations whereby the cultural and recreational potentialities of steel bands might be encouraged; and to suggest the future scope of the 'Trinidad and Tobago Steel Bands' Association.

The last term of reference indicates that in an attempt to gain control of the movement and to give it status the bands had been forced into an association. The problem of organization was rendered more difficult since the steel band had improved so much that the individual bands were able to obtain contracts to play at dances and night clubs, at home and abroad, including even the United States of America. The Association as at first conceived was one of linking up the bands in such a way that they would, in a self-governing manner, exert discipline on those recalcitrant groups which did not observe the code of behaviour to which they were committed. The new commercial possibilities made this task more difficult since it required a much higher degree of integrity in the leadership and loyalty on the part of the individual bands if they were to accept decisions which would have important financial consequences.

The struggle to wean the steel band away from crime was only partially successful. The councillor, the politician, the man of goodwill who devoted themselves to this task served to give 'official' recognition by the upper classes of the society, of the achievement of the steel band in creating from nothing or rather from empty gasoline drums, something of an orchestra. This effort to integrate the steel band movement into the life of the society as a whole came to a head when there was a drive on the part of the steel band committee to raise funds by public subscription to send a representative steel band to Great Britain to represent the island at the Festival of Britain in 1951.

The drive received the patronage of the Governor and a large degree of enthusiastic support from the general public. The amount that it was sought to raise was \$15,000 (B.W.I.)—£3,000—a large sum to be raised at such short notice and for such a purpose. About two-thirds of this amount was actually raised and the Government of the

island provided the rest. Although the sum may appear small, in order that it could be reached at all a real 'national' effort was needed involving radio appeals by leaders of the voluntary organizations, patronage of concerts by the leading citizens of the land, and voluntary collecting by individuals, etc. In this way the steel band movement became associated with all the symbols of Government, of upper-class society, etc., and this undoubtedly helped to remove the stigma attaching to "steel bandmen".

The visit of the steel band to the United Kingdom was quite successful from the point of view of the island society. If, from the limited point of view of most of the inhabitants, it was expected that the steel band was "going to take England by storm", there was little disappointment if results fell short of this, since the same limited perspectives prevented them from appreciating how impossible this was of achievement.

Nonetheless the steel band movement has not yet become definitely removed from its criminal associations. Since the TASPO (Trinidad All Steel Percussion Orchestra) visit to the Festival of Britain there have been further outbursts of gang warfare, though not as serious as on some occasions. In one respect, however, some progress has been made. The association of the steel band with crime was to a large extent fortuitous. It was only in fact in Port of Spain that a great many of the bands had criminal affiliations. In the country districts this was not the case. However, the best bands were in Port of Spain and the general public were aware of the specially composed Calypsos by the Steel Band Association with their aggressive tone:-

"Ah, *Lord Invaders*, why you run, why you run
"Tokyo" back in Town."

"*Invaders* too bad
They want to pelt a stone in the yard
Tell them we are young
Tell them we are strong."

Nonetheless, on account of the rhythms and the technical competence involved, several middle-class persons learned to play the steel band. One result of this has been the organization of these bands in the secondary schools and of the "Girl Pat" steel orchestra, a band composed of middle-class girls. In a sense this has solved the problem of getting some form of cultural expression of a national nature. However, it has not served to bridge the gap between the lower class and the middle class because as soon as the middle class groups learn the technique of actually operating the steel band they move away

from association with the 'real' steel bandmen. How far this trend will overcome the concern and admiration for technical competence cannot be judged at the moment.

REFERENCES

1. ACHONG, Tito P. *Mayor's Annual Report*, Trinidad, 1942-43. Boston Meadow Publishing Co., Boston.
2. GILLAN, Sir Angus. (1946) "The Projection of Great Britain on the Colonial Empire" in *British Commonwealth Objectives*. Ed. Sir Harry Lindsay. Michael Joseph, London.
3. HINDEN, Rita (Ed.) (1945) *Fabian Colonial Essays*. Allen and Unwin, London.
4. INNIS, L. O. *Reminiscences of an Octogenarian*. Trinidad.
5. Laws of Trinidad and Tobago; ch. 25, p. 345 (quoted Herskovitz, M. J. and F. in *Trinidad Village*, p. 38, Knopf, New York, 1947).
6. SAPIR, Edward (1949) "Culture: genuine and spurious" in *Selected Writings in Language, Culture and Personality*. Ed. David Mandelbaum. Berkeley, University of California.

COLONIAL MONETARY THEORY

By

A. F. EARLE

In his excellent paper "Currency and Banking in Jamaica", which appeared in the August 1953 issue of *Social and Economic Studies* "Analyst" attempts a three-fold task. He endeavours, firstly, to give a comprehensive description of the mechanics of the typical colonial monetary system with particular reference to Jamaica. Secondly, he analyses the implications of these mechanics in terms of public policy in the monetary field. Finally, and may we note, passing slightly beyond the terms of reference imposed by his *nom de plume*, he puts forward one or two suggestions for improvement.

Little fault can be found with the purely descriptive passages, although "Analyst" seems to fall into a serious error in describing the gold exchange standard. "Analyst" says in this connection, "... the gold exchange standard under which the currency of one country is convertible into the currency of another country where the currency in turn is backed by gold". The test is not, however, whether the other currency is "backed" by gold but whether the other currency is "convertible" into gold — a point which is acknowledged by citing the example of the Philippines where, in "Analyst's" words, "... the local currency was convertible into U.S. dollars which were convertible into gold". The difference in words is of considerable significance for while the gold exchange standard offers to poor countries the opportunity to share in the advantages,—and disadvantages—of the full gold standard, conversion rights into a currency which could not itself be exchanged for gold offers no such security. By "Analyst's" definition Jamaican currency would be on the gold exchange standard on the strength of the Bank of England's Issue Department's small gold holdings, and even more so, if one were to consider the Exchange Stabilization Fund's holdings as backing.

The term "Sterling Exchange Standard" at first glance seems an accurate label for a system in which the local currency is convertible into sterling. Yet I feel an objection to the term on the grounds that it diverts attention from the central fact of the system which is the rigidity imposed by the requirement of full backing for the local currency. While "Sterling Exchange Standard" accurately describes the mechanical details of the standard, the term "full gold standard"

would more accurately describe its practical effects as is recognized by "Analyst". The latter term is, of course, inaccurate in its reference to gold and perhaps the best compromise would be to describe the colonial currencies as being on a "Full Real Value Standard".

The merit of such a phrase lies in its emphasis on the fact that the Jamaican currency, to narrow the field of reference, can only be brought into being by the sacrifice of an equivalent value of real goods or services. Since every pound of Jamaican currency must be backed by a pound sterling, and the latter in turn must be obtained either by exports of goods or services or the forgoing of imports of goods or services, the fact emerges that Jamaican currency is, at least on first examination, very expensive as compared with wholly or partially "fiat" currencies. Whether this is a good or bad thing is something to which we must pass in considering the second or analytical part of "Analyst's" paper in which he considers that question.

A series of issues arise in considering the advantages or disadvantages of a given type of currency organization in terms of monetary policy. But these questions, to which "Analyst" has addressed himself, should not divert attention from certain more fundamental questions, the answers to which "Analyst" has apparently assumed as being axiomatic. These questions which the monetary theorist, in seeking to apply his knowledge, must ask himself are:

(a) Can a dynamic monetary policy in the present state of knowledge give foolproof directions for dealing with the problems presented, whether these be cyclical, developmental, or political?

(b) More particularly, and assuming that the answer to the previous question is in the affirmative, is it *possible* for an export economy of small size to pursue a monetary policy which is in any way independent?

There is by no means unanimity among those most qualified to answer the first question. If there were there would now need be no fear anywhere in the world of recessions, lagging development, or, so far as economics has any bearing on the subject, of communism. The great wave of monetary controversy which followed the publication of Keynes' "General Theory" stirred a great deal of mud which has now, fortunately, to some extent subsided. While monetary theory may not in "Analyst's" words have progressed since Adam Smith so far as the colonies are concerned can it be said that it has anywhere reached definitive conclusions? And, in any case there are those who believe that, just as Mercantilism was good for England at a certain stage, it might be the sound policy for the colonies at their present stage of development. Perhaps the colonies must go back beyond Adam Smith to find their proper economic policy! Nevertheless, important problems remain:

(a) However low interest rates can be practically pushed, under certain business conditions money will find no takers.

(b) In any case development of large scale industry and internal finance has put large sections of the community which originate investment — in its economic sense—outside of the money market, and thus beyond the reach of the immediate effects of a reflationary movement.

(c) Even if all were agreed on the right steps to take under a given set of circumstances, and the effects of the policy decided upon could be made immediately effective, there will remain the host of problems associated with the re-distribution of real goods and resources arising from any really serious monetary steps.

To elaborate on these statements, which merely suggest the fields of controversy involved, would require volumes, but those readers who are interested in such matters will be able to fill out the skeleton to their own satisfaction.

Turning to the second fundamental question and giving particular attention to Jamaica as "Analyst" has done prompts one to ask whether it is reasonable to think that in the face of a world-wide recession Jamaica might save itself from the catastrophe by monetary means. No other country of comparable size and with a fully independent monetary system has succeeded in insulating itself from world price movements and trade conditions to my knowledge, but this is not conclusive evidence since their failure may have reflected lack of knowledge or inertia. "Analyst" accepts the fact (page 45) that such insulation is impossible.

It seems clear that to attract capital or, to put the matter at its lowest, to avoid a flight of the capital that is already here, Jamaica must be in position to offer some guarantees as to the future exchangeability of its currency and the stability of rate against at least one key currency. If this is admitted then as I shall endeavour to show later, there could be no question of an independent Jamaican monetary policy at all. If it is not admitted then it is necessary for those who deny the proposition to show how real capital may be obtained, particularly in the light of the restrictions which would almost certainly have to be passed to avoid the flight of existing capital in disastrous amounts.

In the words of the lawyers then, is there a case to answer? Should a currency system which admittedly has many advantages (page 50) be changed in order to gain an illusory freedom? Let us examine more closely the specific disadvantages of the present system as seen by "Analyst".

Perhaps the main disadvantage with reference to Jamaica may be summed up as being the continual depressant occasioned by a

money supply which can be expanded only in accordance with favourable developments in the balance of payments. If the money supply were tied to a slower rate of growth than the economy warranted, then there would doubtless be the effect which "Analyst" has in mind. Superficially the steady upward movement of prices even for domestic produce against a background of increasing production would seem to deny the existence of such a restriction. While "Analyst" does not directly deal with this point, he does produce figures which suggest, in relation to it, that part of the answer may lie in a rapid increase in the velocity of circulation. However, a study of "Analyst's" figures suggests an alternative explanation. During the four years from the end of 1946 to the end of 1950 he shows an increase in total money supply of £2.4 million or approximately 24 per cent. The increase in currency and coinage circulation in the same period was, however, only 5 per cent, so that it is true to say that the increased amount of M—total money in circulation—was almost wholly made possible by the increase in bank money which, indeed, amounted to £2.2 million or 33 per cent.

It must be observed, firstly, that these statistics indicate that there is considerably more flexibility in the system than "Analyst" credits since the amount of bank money appears to fluctuate more or less independently of currency circulation. Indeed, it might well turn out that the quantity of bank money fluctuated very closely in proportion to accurate figures for the national income at current prices after deducting the exchange value of subsistence production.

"Analyst" does not in his descriptive passages attempt to give close study to the creation of bank deposits in Jamaica and at first glance it seems difficult to understand how the banks could proceed to incur deposit liabilities at a much more rapid rate than the increase in currency without severely affecting their liquidity ratios. Part of the answer doubtless lies in the fact that the branch banks operating in Jamaica are not under the urgent necessity of preserving a purely Jamaican liquidity ratio as would be the case with a Jamaican bank. This is, of course, all to the good for a developing economy. There is, however, an additional probable explanation and that is that the banks, with their heavy sterling exchange business, have created deposit liabilities in Jamaica against sterling balances held by the banks in London in their own names. Obviously to a banker with a steady turn-over of Jamaican pounds against sterling and with steady demands for payments in London, and receipts in London, and with a substantial call market money available in sterling in London, there is every incentive to avoid converting sterling holdings into Jamaican pounds beyond immediate needs. This does not, of course, apply only to banks since commercial corporations in the export business

would normally try to balance off sterling receipts against payments in order to save bank charges, and would therefore hold sterling balances. In other words the Jamaican currency issue fills only the role of pocket and till money for use in small transactions.

These sterling balances held by banks and corporations are, however, very much a part of the money supply of Jamaica, although they do not figure in the statistics of Jamaican money circulation. If they were to be included it is reasonable to suppose that the money supply would yield a much lower velocity ratio than that indicated by "Analyst", the magnitude of which he obviously finds difficult to explain. It might also indicate a considerably more rapid growth in total money supply over the period of good export markets covered by "Analyst's" figures.

The fact that "Analyst's" figures may fall substantially short, however, of doing justice to the present system's practical working does not alter the theoretical proposition he makes that "there is no internal mechanism by which the money supply can be made to keep pace with an expansion of production". Presumably "Analyst" does not mean to apply this statement to an expansion of production for exports which generate by their proceeds additions to the money supply. There is, however, as he points out in an earlier passage, a deflationary effect where an increased production of goods for internal consumption meets a stationary money supply. The gravity of this situation, however, must depend on the method of finance of the increased home production. To the extent that it is financed by importations of capital or creation of deposits by banks an increase in the local money supply is clearly involved. If I am correct in thinking that the money supply made up of Jamaican bank deposits plus currency is really only working capital with a large additional amount of liquid resources held in sterling then it is probable also that the channeling of local free capital into increased domestic production would also force an addition to the apparent money supply by causing conversion of sterling into Jamaican pounds.

Since we may take as given "Analyst's" statement that "risk capital is practically unavailable after the demands of safe investments, such as mortgages, have been made", there would appear to be little surplus capital available in Jamaica in the form of free funds. Such free capital could be made available either by the transfer of such sterling resources as are available to the money system or by the importation of capital. Both means of adding to the local supply of capital depend, however, on sufficiently attractive local opportunities for investment as to attract money from foreign uses. This is one of the primary reasons why it is not possible to visualize the

rate of interest in Jamaica being held below foreign levels in the interest of Jamaican development.

But, it may be asked, is it not possible for Jamaica to expand the national income by monetary means so as to create attractive investment opportunities? In other words, while an expansionist monetary policy might involve low interest rates in Jamaica the expansion of the national income would raise the marginal efficiency of capital in industrial uses to the point where capital would be attracted from areas of higher interest rates abroad. It is difficult to see how this could happen without restrictions on capital movements which themselves would be an effective deterrent to foreign investment. For, if interest rates in Jamaica were substantially below those in the United Kingdom, a considerable amount of capital invested locally in "safe" investments would inevitably move to the United Kingdom and there would be a considerably greater incentive to the banks to maintain their liquid resources in London.

To revert, however, to a point raised near the beginning of this paper, would it be possible in any case for Jamaica to maintain an independent monetary policy while at the same time undertaking to keep the exchange rate of its currency stable against one key currency, presumably sterling? To the extent that an expansion of the local money supply was offset by increased production of goods and services it might be possible. An increase in the supply of money, however, without an increase in the supply of goods and services would inevitably force a local inflation which would increase the costs of the export industries on which a substantial portion of the national income depends without offering any prospect of their revenue increasing. Would it be reasonable, therefore, to look for an increase in the supply of goods and services in line with an increase in the supply of money? This is, of course, a crucial question, not only to a consideration of monetary policy but also to a consideration of a development programme in general. An increase of goods and services might rapidly be obtained from a programme of public works based on an expansion of the money supply, but these goods and services would not enter into the overall supply of *exchangeable* goods and services and the impact of the increased money supply would fall instead on the supply of goods and services possessing a market value.

The factors of production to which one would naturally look for increases in exchangeable goods and services in Jamaica are labour and land. An increase in agricultural production for home consumption might well result from an expansion of the money supply but this situation is complicated by the undoubted existence, even at the lowest levels of income, of a substantial marginal propensity to con-

sume imported goods. Until we have reasonably current and accurate national income figures for Jamaica it is difficult even to speculate on this subject but it is certain that at least some of the increased purchasing power would be reflected in increased imports with a consequent loss of sterling resources. With an independent monetary system this could have serious effects.

While the same remarks apply to an increased supply of manufacturing goods and services there is the further doubtful point in this connection as to whether any conceivable increase could sufficiently effect what has aptly been called the "vicious circle" of the small market. That is to say, a condition where economic production is not possible because of the inadequacy of the market available for economies of large scale production, and conversely where the market remains small because of the impossibility of raising the national income by economic production.

In the final stage of his paper, "Analyst" does not, after all, suggest very radical changes in the present currency system. He proposes, firstly, that the present circulation and reserves continue as a base but that any currency issues above the present figure should require a sterling reserve of only 50 per cent. The fiduciary element of the increase would be put into circulation by the purchase of local Government securities—a not untried method of monetizing fiscal debt. If this mechanism served to amplify the increases in currency circulation in response to favourable trade developments the result might be reasonably satisfactory. It would have to be remembered, however, that in response to adverse developments the amplification downward would be just as great with the further complication that, while the monetary authority would have no difficulty in purchasing local Government securities, it might have considerable difficulty in selling them quickly without badly affecting the local market.

In point of fact, however, it is probable that a substantial portion of the increased circulation, being in excess of immediate working capital needs, would revert to the monetary authority for conversion into sterling and addition to sterling resources so that the additions would be sterilized.

"Analyst's" other suggestion is that his proposed monetary authority should act as the Government bankers. It is not easy to see any advantage in this proposal, nor does "Analyst" suggest any advantages other than the added status conferred on the monetary authority. On the other hand, as "Analyst" indicates, there are recognized disadvantages, not the least of which is that a monetary authority acting as Government banker tends to develop into as much a book-keeping institution as a channel of fiscal control.

It will be apparent that the writer's criticisms of "Analyst's" paper derive from a fundamental disbelief in the utility of monetary

management in small and predominantly export economies. I believe that "Analyst" is entirely right in studying the possibilities of monetary policy for no means of progress should be neglected. It is my belief, however, that the answer to Jamaica's problems will be found in enlargement of the national income through non-monetary means. To that subject perhaps the editors of "*Social and Economic Studies*" will give me space to revert at some future date and it will then be "Analyst's" turn to bowl at me.

NOTE ON THE CALCULATION OF COLONIAL MONEY SUPPLY

Since sterling balances held by a bank operating in the colonies are instantly convertible into colonial currency they rank equally with the colonial currency as liquid reserves against the bank's deposit liabilities in colonial currency. Where

S = Banks' sterling balances

C = Banks' colonial currency balances

B = Banks' deposit liabilities in colonial currency

f = Liquidity ratio customarily maintained

M = Total money supply

then $B = f (S + C)$

and if $\Delta S + \Delta C = 0$, as in a straight conversion operation of S to C or C to S, then

$$\Delta B = f (\Delta S + \Delta C) = 0.$$

When an exporter deposits the sterling proceeds of a sale the bank in the absence of a greater demand for till money in the colony would normally leave the amount in sterling, (a) to save Currency Board conversion charges and (b) to utilize the London money market, observing especially that it can now increase advances in the colony:

$$\Delta B = f (\Delta S) - \Delta S$$

In practice, of course, $\Delta B = f (\Delta S) - \Delta S$ could only apply to the banking system as a whole and not to an individual bank, and a certain part of ΔS would be transferred to other assets to preserve inter asset ratios so that ΔS would probably be less than the full deposit of the exporter.

In the colonial monetary systems, therefore, it seems sound to consider:

$$M = S + C + B$$

and as a corollary that since C is demonstrably stable that S is the more important flexible element in the money supply independently, and as a determinant of B.

Where an exporter does not deposit locally his sterling proceeds but holds them at his own credit against further commitments the

effect of a favourable balance of payments is lost on the colonial money supply in the same way as if colonial currency were hoarded outside the banking system.

REJOINDER TO MR. EARLE

By

"ANALYST"

One could quite easily agree with many of Mr. Earle's home truths on the role of monetary policy if they were written in another context and not as a rejoinder to my paper, as much of Mr. Earle's criticism refers to a position which was never assumed in that paper. No attempt was made to characterize monetary management as a panacea for Jamaica's problems. The main thesis was rather that monetary policy should not automatically operate in opposition to economic policies which, from our present knowledge of economics, would be considered to be in the country's interest. Whilst knowledge is not perfect in these matters there would be very little dispute today that, for example, in a period of deflation if credit is restricted, recovery will be retarded. The paper was an attempt to find some way out of the difficulty posed by the fact that in Jamaica and other colonial countries monetary "management" might automatically result in the application of credit restriction in a period of deflation. At the same time, it was hoped that the suggested alternative would maintain the advantages of stability and convertibility into an international currency which the present arrangements now ensure. One must also bear in mind the fact that political necessity may result in territories like Jamaica having to adopt some more "manageable" system of currency and it would be most imprudent not to study beforehand what possible advances in currency management can be made in the interim. Economic and political progress can only point in one direction and if the changes proposed can be justified on economic grounds then there is a double reason for favouring them.

Space will not permit a detailed reply to the points raised by Mr. Earle. One of his most important observations is that I have under-stated the volume of the money supply since sterling balances held in London by commercial banks and corporations are part of that money supply, and in omitting these my estimate of M has been grossly under-stated. Notwithstanding the neat mathematical formula which is used to prove this contention, I think it can be shown quite simply that the computation involves a clear case of

double counting in that both bank deposits and sterling balances which are part of these deposits are added together. Both sides of a bank's balance sheet, like that of any other business, must balance and liabilities and assets cannot be added. The latest balance sheet of the commercial banks operating in Jamaica is shown below for the quarter ended September, 1953:

Liabilities		Assets	
	£m		£m
Deposits	20.6	Loans and advances	13.3
Balance due to banks		Balances due from banks	
abroad	.2	abroad (sterling balances)	3.4
Other liabilities (including notes in circulation, balances due to banks in Jamaica, etc.)	1.8	Other assets (cash, investments) balances due from banks in Jamaica etc.)	5.9
	<u>£22.6</u>		<u>£22.6</u>

Source: Digest of Colonial Statistics No. 12, January-February, 1954.

Since deposits have already been counted as part of the money supply, the sterling balances in London held by the banks (£3.4m) cannot again be counted, and therefore the relief to the money supply which Mr. Earle envisages is really not available. Apart from the banks, the commercial firms holding any substantial sterling balances in London must be limited to very few undertakings. It is true that in certain colonial territories the sterling holdings of banks represent the greater part of their assets. In Northern Rhodesia, for example, the Balance Sheet at June, 1953, shows a completely different picture from Jamaica as indicated below:

Liabilities		Assets	
	£m		£m
Deposits	31.2	Loans and advances	2.2
Balance due to banks		Balances due from	
abroad	17.6	banks abroad	44.7
Other	.2	Other	2.1
	<u>£49.0</u>		<u>£49.0</u>

Source: Colonial Digest of Statistics No. 12.

These figures merely show the results of banking operations in a territory where most trade and industry is carried on by overseas firms and reinforce the argument that countries like Jamaica have progressed to a more advanced stage where the system which works in Northern Rhodesia may require changes in its application

to Jamaica. In any event if bank deposits of £31.2 are counted as part of the Rhodesian money supply, the balances due from banks abroad could not be regarded as a further addition to its money supply.

The second major observation here rests on the failure of Mr. Earle's rejoinder to differentiate between the role of gold and sterling as a backing for purposes of international exchange, and their use so far as a domestic currency is concerned. It has been recognized for over a century in orthodox monetary theory that full convertibility does not require 100 per cent backing of the domestic currency. As early as 1844 the Bank Charter Act of that year introduced the fixed fiduciary issue at home whilst maintaining full convertibility at home and abroad. In 1816 Ricardo (1) had proposed that the central banks should exchange gold bullion for notes instead of coin, thus effectively limiting the use of gold to foreign exchange purposes only. (This, of course, was the essence of the system introduced in the United Kingdom in 1925). The limited objective proposed in my paper of reducing the backing of further note issues from 100 per cent to 50 per cent is not only a step towards the policy pursued in most countries today, but it has an ancient and honourable lineage. There is no good reason why domestic currency should continue to have the expensive backing of 100 per cent "real value" and there is also no good reason (given proper management) why in the absence of 100 per cent backing for the entire note issue, the Jamaica pound should not still be on the sterling exchange standard through the keeping of adequate reserves of sterling. This is not a novel suggestion. It is commonplace all over the world. As explained in my paper, the proposed system would merely follow the principles of banking. No banker finds it necessary to have his deposit liabilities covered by 100 per cent liquid reserves. If this were so, banking would never have started. Similarly to maintain the international value of a currency there is no need to have 100 per cent backing for every unit of currency used for domestic and overseas purposes. Jamaica need not cut off its links with an international currency at any time in the future and the only change proposed is the abandonment of the present illogical arrangement in which the poorest countries in the world maintain the luxury (and hindrance) of an expensive backing. It is repeated for emphasis that no severing of the sterling link is proposed but only a simpler and less expensive currency arrangement.

Mention has been made by Mr. Earle of the gold in the Bank of England and the Exchange Equalization Fund's holdings. It may help to give some orders of magnitude to quote from the Bank of England Return of February 25, 1954:-

Notes in circulation	£1,545,000,000
Gold coin and bullion	£2,900,000

It is pretty clear that the gold in the Bank of England is practically a collector's item and that the sterling which is backing for Jamaica's notes derives its worth from the purchasing power of sterling in the sterling area and abroad. The gold and foreign currency holdings of the Exchange Equalization Fund have no bearing on the notes in circulation inside the United Kingdom and are only used in ironing out the results of fluctuations in overseas trade.

I will attempt one further comment and it is to express surprise that my original statement about the deflationary effects of these colonial currency arrangements was not completely acceptable. It has been repeated *ad nauseam* in studies of the gold standard and of all 100 per cent backed money that they suffer from an "inherent bias towards deflation" since when gold or the superior currency is lost as a result of trade or capital movements the local currency must be contracted; whilst when gold is gained there is no obligation to issue an increased amount of currency. This compulsory deflation arises from the vagaries of trade and is largely unconnected with the state of the home economy.

No one can quarrel with Mr. Earle's view that progress must be sought by an enlargement of the national income. But it seems just as wrong to exclude monetary policy in this process as to place sole reliance on it. A small country has to use all the tools which the advances in economic knowledge have shown to be usable and can only neglect at its peril one so important as monetary policy.

REFERENCES

- (1) RICARDO, DAVID. *Proposals for an economical and secure currency, etc.* (quoted in Holm—Monetary Theory, p. 186).

BOOK REVIEWS

Family and Colour in Jamaica. By F. M. Henriques. Eyre and Spottiswoode, London. 1953. 196 pp.

Crisis of the West Indian Family. By Dom Basil Matthews. Extra-Mural Department of the University College of the West Indies, Port of Spain, Trinidad. 1953. 117 pp.

Dr. Henriques' book is an account of the variations in family patterns to be found in modern Jamaican society, classified according to the colour-class divisions which the author distinguishes in his second and third chapters. The discussion is couched partly in terms of the island society as a whole, partly in terms of the parish of Portland, with which the author is particularly connected and where his field studies were carried out. Dom Basil Matthews' book, in spite of its title, is mainly a study of family forms in Trinidad, and of the extent to which these forms are acceptable to Trinidadians themselves and to those who have a moral or administrative interest in the satisfactory functioning of Trinidad society.

Both these accounts assemble much descriptive material which had not been available before. This material has been obtained by a wide range of techniques. Dr. Henriques draws on historical accounts of Jamaica; on census material and other broad official statistics; on interviews and field studies; and on the observations made during his life in Jamaica. Dom Basil Matthews draws on all these sources, on the specialized experience afforded by his office, and on field reports collected for him by amateur observers throughout Trinidad. In respect of material these two books therefore represent a definite advance on previous studies of West Indian society.

In respect of organization and analysis neither book is wholly satisfactory. Dr. Henriques' study is organized on the themes of colour and class, and he devotes considerable space to their inter-relationship. There are points at which his account seems to apply more accurately to conditions fifteen years ago than to the present; this, however, does not impair the general validity of his observations. It seems that a more serious difficulty arises from his use of a simple three-class system closely correlated with ascribed skin colour to classify family types. In the first place, while it is generally recognized that the ascribed skin colour in the upper social groups is influenced by considerations of status as well as objective hue, it is not

so clearly understood that the line between black and brown is also drawn by Jamaicans according to status level as well as objective colour. Hence the quoted census figure of 78.1 per cent black in the total population is of very doubtful significance, and the implication that the majority of the 'lower class' are ethnically homogeneous is not justified. Then, too, the inclusion of both unskilled workers and peasants in a single 'lower-class' group obscures important distinctions between these groups distinctions which are particularly clear in the field of family organization. It is in any case doubtful whether a peasantry of the Jamaican type can be fitted successfully into a simple three-class schema.

Dom Basil Matthews' study concentrates on what he calls the non-legal union, corresponding to Henriques' 'commonlaw marriage', and is concerned to answer two main questions; what are the historical roots of the non-legal union? and, is it to be looked on as a weakened form of full marriage of a Christian or African type, or is it an 'independent' form corresponding to and arising from the needs of the Trinidadian lower classes? His conclusions appear to be, broadly, that in the post-emancipation period the non-legal union represented the emergence of a relatively stable family form out of the confusion of slavery; that it presents parallels with African family forms (in this connection he seems to accept the rather dubious evidence that the dominant African stock in the island is that of the Yorubas) but that these parallels are not of great significance; and that the non-legal union is very generally looked on as in some sense a substitute for Christian marriage, even among couples who are unwilling for economic or personal reasons to make the transition to a more permanent union. The statement of these conclusions is not very explicit, and they are somewhat obscured by the repetition of the same arguments and evidence at different points.

Dom Basil pays less attention than Henriques to the status implications of various family forms; it is only on his next-to-last page that he brings out the surely very important fact that "marriage is deemed impracticable . . . unless it is backed up by a considerable rise in the socio-economic status of non-legal partners". On the other hand he recognizes, as Henriques does not, that the non-legal union may vary in frequency and function in different economic contexts and may have a different significance in urban and rural settings. It is one of the difficulties of the study of West Indian communities that they cannot be regarded as homogeneous societies and that accurate delineation of the institutions of a limited community (e.g. a rural village) does not in itself present a satisfactory basis for analysis of the societies of the larger territories. The usual techniques of anthropology are perhaps tending to concentrate attention on the

country rather than the town, and on the peasant village rather than the plantation village, producing a bias in our knowledge of West Indian society as a whole, in which the urban and the 'rural proletarian' populations are important elements.

It is noticeable that Dr. Henriques, like Dom Basil, does not introduce until his last pages a potentially important organizing concept, in his case the generalization that the Jamaican family is 'eunomic' within the limits set by the total society, but 'disnomic' in so far as the society itself is disnomic. This conclusion would bear fuller treatment, both of its theoretical implications and of its relation to the evidence presented.

Both authors are natives of the societies of which they treat, and occupied clear and relatively high status positions in those societies. There is no reason to doubt that in these cases the observers' status positions secured them special advantages in obtaining and interpreting their data. But generally speaking the West Indian is a sophisticated person who adjusts his overt attitudes constantly to conform to the status of the person he addresses, and this with considerable subtlety. May it not be necessary in future for even 'outside' anthropologists to give more attention to the possible distortions of information arising from their own status position within the community studied?

G. E. Cumper

Britain, Her Peoples and the Commonwealth. By Robert B. Eckles and Richard W. Hale, Jr. Mc Graw-Hill Book Co., New York. 1954. vii, 794 pp.

The jacket of this new text book describes it as a "survey of English history from the beginnings of geological time to the accession of Elizabeth II." It is for the use of American university students who are unfamiliar with the facts and spirit of English history, and attempts to avoid the use of terms that are meaningless to them. The principal emphasis is placed on the modern period—the years to the end of the reign of Elizabeth I being given some fifteen per cent of the total, as compared with almost forty per cent in Keith Feiling's *A History of England* (Macmillan and Co., Ltd., London, 1952). The authors emphasize the economic, social, constitutional, political, diplomatic and imperial aspects of the subject, and the reader will look in vain for well-rounded discussions of religious and cultural history. In order to meet the needs of those universities that offer courses that begin at various dates in English history, the authors have provided alternate starting points at such dates as 1603, 1783,

1832, etc. Within the periods chosen, they treat their material topically rather than chronologically and exposition becomes more important than narration. In Part II they see to it that the material on politics follows the discussion of economic and social factors. Political history is thus placed in what seems to the reviewer to be its proper setting.

In a book written along such lines a certain advantage is gained by looking at a period from a number of points of view. The various aspects of a period of history may be thus examined closely and the conceptual weaknesses of a narrative treatment may to a considerable extent be avoided. The study of a chapter on the economic life of England may also be a prelude to the use of special studies on that subject. The topical organization of a large part of the book should prove helpful to those teachers who realize the importance of organization in the presentation of their materials. But there are dangers involved. The examination of one aspect of history, to the temporary exclusion of other aspects, is an operation chosen for purposes of clearer understanding, and the student must eventually put together the various parts of the historical picture. A series of partial views does not necessarily produce a total view. Whether the book under review will enable the student to do just this must be determined by the teaching process in the classes that use it.

Every teacher of history has his own preferences as to what subjects ought to be emphasized. The present reviewer would appreciate fuller treatment of English history before 1603, and was disappointed at the paucity of material on mediaeval, economic and religious history, the Reformation, and the modern trade union movement. The discussion of the work of Henry VIII seemed unnecessarily brief — almost shabby in the amount of attention given to such an important subject. The authors make no attempt to deal with the reign of Elizabeth I as a cultural epoch, and it must be noted that William Shakespeare is allotted about as much space as Sir Eric Geddes. John Milton appears principally as the Latin secretary of Oliver Cromwell and the defender of the Protestants in the Italian Alps, though a brief reference is made to *Paradise Lost*. One would assume from this book that England had not produced a literary figure or painter in the eighteenth century, or, that if she had, the fact was not worthy of mention. Choices have to be made, and the authors chose to deal with the eighteenth century from the economic, social, political and imperial points of view, the importance of which few would deny.

Since this book is written primarily for students and is organized largely on a topical basis, it should be provided with an unusually good index. If a casual reference is made to an incident that is treated more fully in a later chapter, the inquisitive student may

want to learn at once the meaning of the incident—and the index is the means of finding it. A reference to the "Chanak incident" is made on p. 677, but the index would be of no help to the student who took the time to look for it; the reader who wanted to understand the "Penjdeh incident" (p. 530) would find that the index gave him no aid. The Poor Law Amendment Act of 1834 is unfortunately listed under "New Poor Law." The Labour Party, the Independent Labour Party and the Social Democratic Federation are not given a place in the index.

It would be difficult to say whether students will find this book to be interesting reading. To the reviewer the style seems to lack polish, and there are places where the colloquial manner of the lecture room seems to have been carried into the written text. Such sentences as "But this did not bring Balfour peace" (p. 535), "But this dream turned out a nightmare" (p. 685), and "The work Balfour did lasted" (p. 693) seem to the reviewer to be particularly infelicitous.

From time to time the authors slip into errors of fact. The date of the Don Pacifico episode is given as 1851 at one place and as 1850 in another (pp. 434-5, 446). On page 522 and in the index, the date of the famous Lloyd George Budget is given as 1908, while on page 537 it is given correctly; the authors are mistaken in believing that the National Insurance Act (1911) provided for "old-age and health insurance" (p. 538) and that it had nothing to do with unemployment insurance. The Old Age Pensions Act of 1908 was non-contributory and therefore was not an insurance act in any sense. The Licensing Act of 1904 is incorrectly dated on p. 535. The authors are wrong in saying (p. 537) that a bill for the reform of the House of Lords was rejected by that house before the death of Edward VII in May, 1910.

The authors at times use terms in a rather inexact manner. Lloyd George and other Liberals are described as "pacifist" when their attitudes were really "pacific" (pp. 562, 563). "Tory Democracy" is most inadequately explained (p. 529). The whole period from 1919 to 1939 is treated under the title "Collectivist Britain between Two Wars", yet the authors go to some pains to show that the Government of England dealt with the depression of the 1930's without the use of "new schemes for social readjustment", depending on the law of supply and demand and the existence of a central bank that "gave a conservative and sound lead to financing of business." Nowhere do the authors make clear just what they mean by "collectivism" and the term does not appear in the index. In their explanation of the victory of the Labour Party in 1945 they make the remarkable statement that for five years the youth of England "had been living under socialism and having to like it, for what is an army, a navy, an air force, but socialism at work?" (p. 755). The reviewer cannot refrain

from suggesting that the authors should have spent more time in refining their use of terms.

No attempt has been made by the authors and publishers to provide teaching aids for those who will use this book. The reading references are placed at the end in a form that is satisfactory for a learned work but not helpful to the student who may need references at his immediate disposal. Nowhere does one find lists of provocative questions for thought and discussion. The chapters are not provided with topical headings to help the student get a sense of direction and organization. The authors of text books for universities might well be more concerned with the importance of the methodology of teaching. The book under review does not point the way to a bright future in this matter.

Ronald V. Sires.

The National Income of Nigeria, 1950-51. By A. R. Prest and I. G. Stewart. Col. Research Studies No. 11 H.M.S.O. 1953.

Despite the obvious limitations of source material, in a country such as Nigeria, where there is not even a satisfactory census of population, Prest and Stewart in this paper present a set of estimates, which should have far-reaching effects, both from the point of view of the administration, and from the point of view of the methodology of national income estimating in underdeveloped territories. The totals of gross national product are derived from the output, expenditure and income approaches, but the authors do not regard the close approximation of the totals they obtain as in any way checking their accuracy, since the basic raw materials used for the estimates were much the same in each case. This is a limitation common to all but the most highly developed countries, since there are rarely sufficient statistical data available for the three estimates to be completely independently based. With this most valuable cross check denied him, the investigator must be content to use every means at his disposal to check the components of his totals. Prest and Stewart give an example of this type of checking in their section on the evaluation of farm produce, where estimates of food production based on acreage and yield data were checked by information on food consumption derived from family budget studies.

Nigeria is divided into three political regions which differ considerably in the character of their economy and their population. The total estimates are broken down into their regional components, and despite the difficulties of estimating variations in

income in regions within a country it is thought that the resultant totals give a reasonable basis for comparison of the wealth of the regions. An appendix contains a detailed analysis of inter-regional trade.

The total gross domestic product of Nigeria in 1950-51 was £596.7m., that is, on the basis of the best available population estimates, about £20 per head per annum. This is a far higher income per head than in the past has generally been supposed to be the case. It is a startling contrast to a pre-war estimate of £2 per head, and one that cannot possibly be explained simply by the general rise in world prices. An unpublished estimate for 1948 gave a total national income of between £180m. and £200m. for Nigeria; Prest and Stewart give an estimate of £295.9m. for the value of farm crops alone. It seems probable that the great difference between their estimate and the earlier estimates is mainly due to their much higher valuation of locally consumed food crops, and internal transport and trading services; the value of certain intra-family services which have been ignored in the earlier estimates, while interesting from the theoretical point of view, is nevertheless too small a proportion of the total gross national product to have much influence on the relative size of the estimates.

The figure of £295.9m. for farm crops is 49.6% of the total gross domestic product: an item in comparison with which all other items are insignificant. The figure includes all cultivated crops, both for export and for home consumption. Palm products, which are the result of bountiful nature rather than cultivation, are included amongst forest products, as are bananas. The four Nigerian marketing boards provided information on the export crops, but as might be expected the output of crops for local consumption was difficult to estimate: most of the gross tonnage estimates were based on the F.A.O. census of agriculture, but in some cases other estimates which were thought to be more accurate were used. It was found impossible in practice to separate that part of production retained for home consumption from that part which was sold, and all locally consumed produce was valued at market prices (averaged over time and between markets in each province). The result is that the total figure contains an element of transport and distribution, which involves double counting since no deduction is made for operating expenses in this sector. The method of evaluating subsistence would also lead, if one does not accept the authors' argument in its favour, to an overvaluation in the total. If an arbitrary deduction of 25 per cent is made to allow for these factors (and it must be arbitrary, for how can one estimate how much of the total production is consumed at home or decide what a reasonable ex-farm price would be?), the

value of farm crops would still be 42.5 per cent of the gross national product.

There is a stimulating discussion of the methodological difficulties involved in evaluation of subsistence production and intra-household services. It is obvious that some evaluation must be made, for these things form such an important part of income and consumption that to ignore them would be to give a completely distorted picture. The question is, precisely what goods and services should have value imputed to them, and how should the value be arrived at? The authors have decided that market value is the most sensible value to assume for subsistence production, but their case for this on grounds of expediency is stronger than the theoretical justification. In particular it is difficult to believe in the bogey of "negative incomes", which they say might arise if subsistence production were valued at ex-farm prices, calculated by deducting the costs of transport to the nearest market from the current price in that market. Surely, if instead of taking an actual figure of transporting the particular set of goods from a particular hut or field to the market, one takes an average figure for the cost of transport of all goods sold in the market, and deducts that, this difficulty disappears. It does not seem more difficult to believe in the reasonableness of a hypothetical "average cost of transport" than it does to accept the possibility which the authors recognize, that if subsistence production is valued at market and not ex-farm prices one may have a situation in which goods eaten at the back door of a hut are valued higher than precisely similar goods sold at the front door!

There is a very interesting chapter on the conclusions which may be drawn from the work, which is devoted mainly to the destruction of popular misconceptions about the nature of the Nigerian economy. It has already been pointed out that the gross national product and income per head are very much higher than has been generally supposed. But what of the gross national income? What of the vast profits remitted overseas by foreign concerns? In fact the gross national income is very little lower than the gross national product.—£593.7m. against £596.7m. The figure for the net remitted profits and earnings of foreign companies is £5.7m., or 0.95 per cent of the gross domestic product, and this leakage is in part compensated for by the earnings of Nigerian assets invested abroad, and the earnings of emigrant labour. It does not appear that the foreign capitalist is absorbing an undue proportion of the wealth of the country.

Another popular belief, which in the light of this estimate of the national income appears to be a misconception, is that Nigeria is dangerously dependent upon foreign trade, so that fluctuations in world markets must have disastrous repercussions on her economy.

Prest and Stewart point out that in 1950-51 exports formed only about one-sixth of the gross domestic product and imports about one-tenth. Imported goods at landed values comprised about 12 per cent of consumer expenditure, and very few of these goods were absolutely indispensable or incapable of being replaced by local substitutes. Salt, and iron for the manufacture of agricultural implements, were two of the most essential imports. In a time of drastically restricted importing the major losses would be textiles and capital goods. The authors conclude . . . "The idea that a fall in world prices for Nigerian exports would be *immediately* catastrophic is therefore insupportable, even if the nest-egg of marketing board balances is completely ignored." It certainly appears that there would be no immediate disastrous fall in the standard of living as a result of a fall in world prices for Nigerian exports; but it does seem likely that a contraction of foreign trade might seriously embarrass the administration, since 68.2 per cent of central government current income in 1950-51 was derived from taxation on incomes and on goods, taxation the bulk of which was levied on goods entering into or incomes arising from foreign trade.

The authors feel that no useful purpose would be served by presenting the material contained in these estimates in the form of social accounts, that in fact it might even be misleading in an economy where a large part of the national output never enters an organized market. They suggest that the social accounting system is suitable only to highly developed economies. Whilst it is true that there are serious limitations to the applicability of social accounting in under-developed areas, one feels that it has here been too summarily dismissed. In any economy it is useful to have a set of accounts which illustrate the relationships between one sector and another, and which demonstrate the links between the sectors. Such a set of accounts is a useful tool in the hands of policy makers who are endeavouring to foresee the possible repercussions of policy changes. In Nigeria for example it might be desired to estimate the probable effects of various methods of disbursing marketing board surpluses. Surely social accounts would be useful and meaningful in this connection?

At the end of the paper there is a discussion of the source material for the estimates, coupled with recommendations for future action. Economists working in the West Indies will endorse most of what is said in this chapter, for nearly everything could be said with equal relevance of the West Indies — the inadequacy and lack of uniformity of the statistics, the difficulties of interpretation, the unwillingness of many persons to make any estimate which cannot be calculated to the last halfpenny, and their corresponding willingness to prepare totals of little meaning which can be so calculated; in short

the general lack of understanding of the use and significance of economic statistics is absolutely familiar to us.

It is a matter for regret that such an interesting and useful piece of research should be published in such a flimsy form, and it is to be hoped that it may be possible to republish the work in a more enduring form, which will reach a wider public than this white paper can hope to do.

Nora M. Siffleet.

NOTES ON CONTRIBUTORS

K. H. Straw is a graduate (Economics) of Manchester University. He was Research Assistant in the Department of Economics at Manchester and worked for a period with the Lancashire Industrial Development Corporation. He is now a Research Fellow of the Institute of Social and Economic Research. His paper "A Survey of Income and Consumption Patterns in a sample of Households in Barbados" was published in Vol. 1, No. 4 of *Social and Economic Studies*.

W. F. Maunder, a graduate of London University, has held the post of Research Fellow in Statistics at the Institute of Social and Economic Research since October 1952. He was previously Assistant Lecturer in Statistics in the University of Southampton, Research Assistant in the Division of Research and Statistics of the E.C.A. and served with UNRRA and the Greece Mission.

Ronald V. Sires, Professor of History, Whitman College, Walla Walla, Washington, U.S.A., served as Fulbright Lecturer in History at U.C.W.I. during the year 1953-54. His thesis for the Ph.D. dealt with Jamaican history and he has published a number of articles on Jamaica in the *Journal of Negro History*, *Journal of Comparative Legislation and International Law*, and *Jamaican Historical Review*. He received a grant-in-aid from the Social Science Research Council in 1952 for study in London on English economic history.

Lloyd Braithwaite, graduate (Sociology) of London University, is a Research Fellow of the Institute of Social and Economic Research. He has worked primarily in the field of social structure, Trinidad. His paper on this subject "Social Stratification in Trinidad" appeared in Vol. 2, Nos. 2 and 3 of *Social and Economic Studies*.

A. F. Earle, graduate of London University, is an economist and accountant on the staff of Alumina Jamaica. He contributed a paper to the third number of *Social and Economic Studies* (Vol. 1, No. 3) entitled "Incentives to private Investment as an Aspect of Development Programmes".

of
ce
be
ir-
an
et.

was
nd
on.
ch.
of
nic

of
rch
the
rch
on.
lla,
.I.
ory
gro
and
cial
nic

a
has
on
and

nt-
bird
to